

1019.

89-37/pct.1  
IN 8/4  
89 1/4

# PART 1 TRAFFIC SAFETY

---

HEARINGS  
BEFORE THE  
COMMITTEE ON  
INTERSTATE AND FOREIGN COMMERCE  
HOUSE OF REPRESENTATIVES  
EIGHTY-NINTH CONGRESS

SECOND SESSION

ON

**H.R. 13228**

AND OTHER BILLS RELATING TO TRAFFIC SAFETY

MARCH 15, 16, 17; APRIL 26, 27, 28;  
MAY 3, 4, 5, 10, 11, 12, 13, 1966

**Serial No. 89-37**

Printed for the use of the  
Committee on Interstate and Foreign Commerce

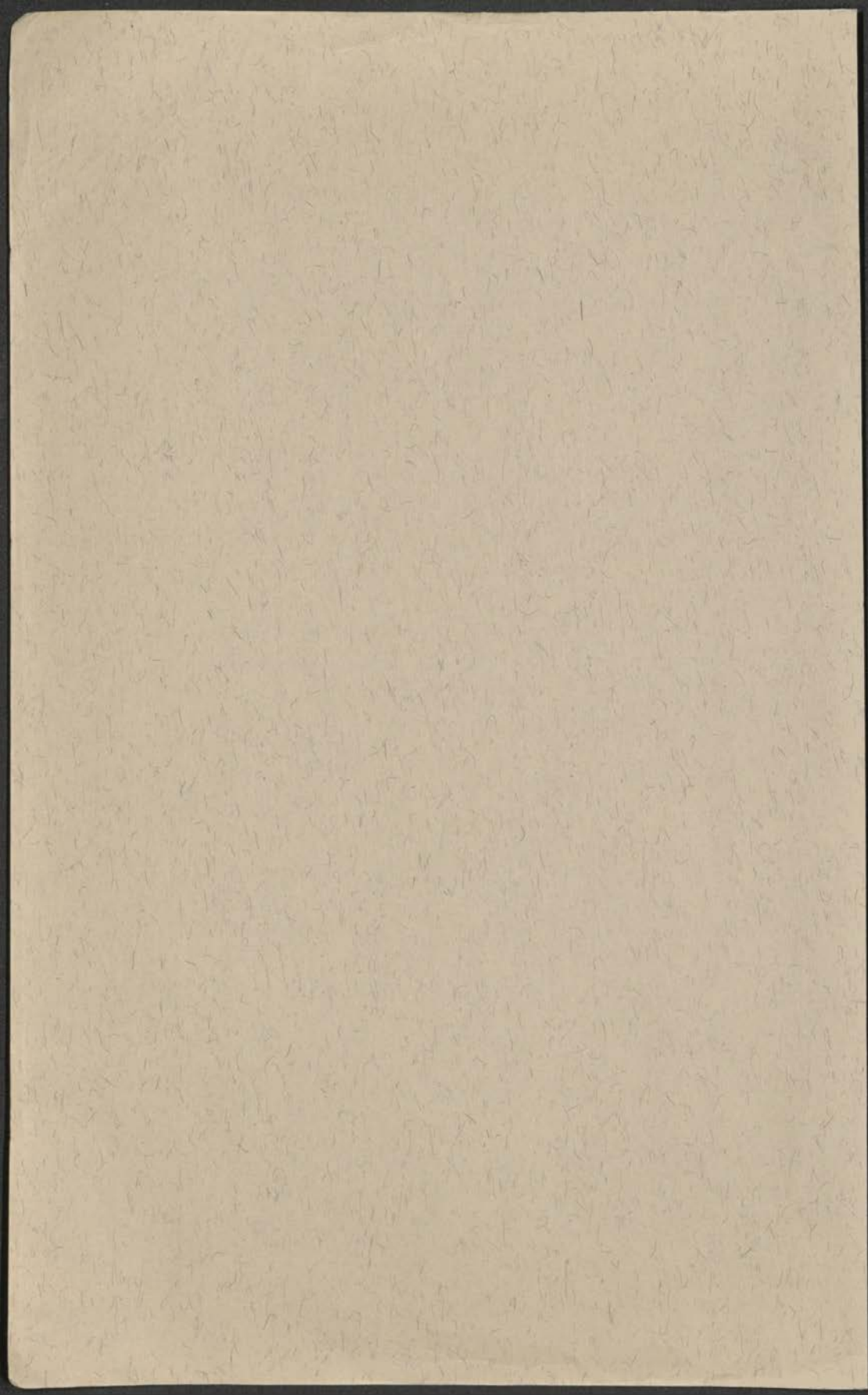


KSU LIBRARIES



✓  
A11900 806917





# PART 1

# TRAFFIC SAFETY

---

## HEARINGS

BEFORE THE

## COMMITTEE ON

## INTERSTATE AND FOREIGN COMMERCE

## HOUSE OF REPRESENTATIVES

EIGHTY-NINTH CONGRESS

SECOND SESSION

ON

### H.R. 13228

AND OTHER BILLS RELATING TO TRAFFIC SAFETY

MARCH 15, 16, 17; APRIL 26, 27, 28;

MAY 3, 4, 5, 10, 11, 12, 13, 1966

### Serial No. 89-37

Printed for the use of the  
Committee on Interstate and Foreign Commerce



U.S. GOVERNMENT PRINTING OFFICE

WASHINGTON : 1966

COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE

HARLEY O. STAGGERS, West Virginia, *Chairman*

WALTER ROGERS, Texas	WILLIAM L. SPRINGER, Illinois
SAMUEL N. FRIEDEL, Maryland	J. ARTHUR YOUNGER, California
TORBERT H. MACDONALD, Massachusetts	SAMUEL L. DEVINE, Ohio
JOHN JARMAN, Oklahoma	ANCHER NELSEN, Minnesota
LEO W. O'BRIEN, New York	HASTINGS KEITH, Massachusetts
JOHN E. MOSS, California	WILLARD S. CURTIN, Pennsylvania
JOHN D. DINGELL, Michigan	GLENN CUNNINGHAM, Nebraska
PAUL G. ROGERS, Florida	JAMES T. BROYHILL, North Carolina
HORACE R. KORNEGAY, North Carolina	JAMES HARVEY, Michigan
LIONEL VAN DEERLIN, California	ALBERT W. WATSON, South Carolina
J. J. PICKLE, Texas	TIM LEE CARTER, Kentucky
FRED B. ROONEY, Pennsylvania	
JOHN M. MURPHY, New York	
DAVID E. SATTERFIELD III, Virginia	
DANIEL J. RONAN, Illinois	
J. OLIVA HUOT, New Hampshire	
JAMES A. MACKAY, Georgia	
JOHN J. GILLIGAN, Ohio	
CHARLES P. FARNSLEY, Kentucky	
JOHN BELL WILLIAMS, Mississippi	
BROCK ADAMS, Washington	

W. E. WILLIAMSON, *Clerk*

KENNETH J. PAINTER, *Assistant Clerk*

*Professional Staff*

ANDREW STEVENSON  
KURT BORCHARDT

JAMES M. MENDER, Jr.  
WILLIAM J. DIXON



# CONTENTS

Hearings held on—	Page
March 15, 1966	1
March 16, 1966	91
March 17, 1966	125
April 26, 1966	223
April 27, 1966	347
April 28, 1966	427
May 3, 1966	553
Text of—	
H.R. 7494	22
H.R. 9514	18
H.R. 11891	22
H.R. 12548	14
H.R. 12632	19
H.R. 12989	25
H.R. 13228	2
H.R. 13493	19
H.R. 13574	19
H.R. 13666	26
H.R. 13675	20
H.R. 13676	21
S. 2669	32
Report of—	
Bureau of the Budget on H.R. 13228	10
Commerce, Department of, on H.R. 11891	38
Federal Trade Commission on—	
S. 2669	48, 50
H.R. 11891	41
H.R. 12989	43
H.R. 13666	50
General Services Administration on—	
H.R. 7494	37
H.R. 13228	13
Health, Education, and Welfare, Department of, on H.R. 13228	11
State, Department of, on H.R. 7494	37
Treasury, Department of the, on—	
H.R. 11891	40
H.R. 13228	12
Statement of—	
Abersfeller, Hon. Heinz A., Commissioner, Federal Supply Service, General Services Administration	618
Bennett, Hon. Charles E., a Representative in Congress from the State of Florida	85
Bennett, Norman, member, Society of Automotive Engineers	535
Bergheim, Melvin L., Americans for Democratic Action	538
Bever, Dr. Christopher, chairman, Washington (D.C.) section, Physicians for Automotive Safety	500
Bolton, Hon. Frances P., a Representative in Congress from the State of Ohio	605
Boyd, Alan S., Under Secretary for Transportation, Department of Commerce	125
Brown, Russell I., president, Insurance Institute for Highway Safety	427
Bugas, John S., vice president, Ford Motor Co	234
Byrd, George H., Macon, Ga	443

## Statement of—Continued

Chapman, Bernard A., executive vice president, American Motors Corp.....	Page 234
Chesebrough, Harry, vice president, Chrysler Corp.....	234
Clark, Dr. Carl, Baltimore, Md.....	686
Cohen, David, legislative representative, Americans for Democratic Action.....	538
Connor, Hon. John T., Secretary of Commerce.....	125
Constad, Dr. Arnold, secretary, Physicians for Automotive Safety.....	500
Creighton, Basil R., executive director, Vehicle Equipment Safety Commission.....	761
Culver, Hon. John C., a Representative in Congress from the State of Iowa.....	612
Davis, Robert, Director of Legislation, General Services Administration.....	618
Donohue, Hon. Harold D., a Representative in Congress from the State of Massachusetts.....	616
Fannin, Hon. Paul, a U.S. Senator from the State of Arizona.....	714, 790(pt. 2)
Farnsley, Hon. Charles P., a Representative in Congress from the State of Kentucky.....	227, 1256(pt. 2)
Friedel, Hon. Samuel N., a Representative in Congress from the State of Maryland.....	229
Fulton, Hon. Richard, a Representative in Congress from the State of Tennessee.....	121
Gikas, Dr. Paul, associate professor of pathology, University of Michigan College of Medicine.....	500, 505
Giles, Robert E., General Counsel, Department of Commerce.....	125
Graftey, Hon. Heward, Member of Canadian Parliament, Quebec Province.....	449, 454
Hall, James W., Jr., coordinator for Independent Garage Owners of Georgia, Inc., Atlanta, Ga.....	443, 529
Hansen, Hon. John R., a Representative in Congress from the State of Iowa.....	224
Halpern, Hon. Seymour, a Representative in Congress from the State of New York.....	601
Hathaway, Hon. William D., a Representative in Congress from the State of Maine.....	606
Hoffa, James R., president, International Brotherhood of Teamsters Union.....	347
Hollomon, Herbert, Assistant Secretary for Science and Technology, Department of Commerce.....	125
Horton, Hon. Frank, a Representative in Congress from the State of New York.....	86, 544
Jewell, Hon. John R., Maryland State commissioner of motor vehicles.....	678
Katz, Hon. Harold, State representative, State of Illinois.....	449, 457
Kelner, Joseph, president, American Trial Lawyers Association.....	389
Love, Hon. Rodney M., a Representative in Congress from the State of Ohio.....	609
McCarthy, Hon. Richard D., a Representative in Congress from the State of New York.....	116
Machen, Hon. Hervey G., a Representative in Congress from the State of Maryland.....	617
Mackay, Hon. James H., a Representative in Congress from the State of Georgia.....	60
Marsh, Winston W., executive vice president, National Tire Dealers & Retreaders Association, Inc.....	487
Marshall, Robert L., associate executive secretary, National Commission on Safety Education, National Education Association.....	91
Moore, John, director, Division of Research and Development, New York State Department of Motor Vehicles, Albany, N.Y.....	449, 469
Mozingo, Hon. James P., III, State senator, State of South Carolina.....	449, 466
Multer, Hon. Abraham J., a Representative in Congress from the State of New York.....	611
Petris, Hon. Nicholas C., assemblyman, State of California.....	449, 460
Reinecke, Hon. Ed, a Representative in Congress from the State of California.....	607



# CONTENTS

v

Statement of—Continued	Page
Ribicoff, Hon. Abraham, a U.S. Senator from the State of Connecticut	554
Ritter, George, Assistant Commissioner, Standards and Quality Control, General Services Administration	618
Ross, Ira G., president, Cornell Aeronautical Laboratory, Inc., Cornell University	692
Rumsfeld, Warren E., chairman, board of directors, National Professional Driver Education Association, Inc.	717
Russell, George, executive vice president, General Motors Corp.	233
St. Onge, Hon. William L., a Representative in Congress from the State of Connecticut	610
Scalise, Lawrence F., attorney general, State of Iowa	413
Speno, Hon. Edward J., State senator, State of New York	449
Spitz, Louis P., chairman, Vehicle Equipment Safety Commission	761
Stapp, Col. John P., Chief, Impact Entry Branch, Armed Forces Institute of Pathology, Washington, D.C.	779, 1149(pt. 2)
Sullivan, Hon. Leonor K., a Representative in Congress from the State of Missouri	53
Vinson, H. B., president, National Professional Driver Education Association, Inc.	717
Vivian, Hon. Weston E., a Representative in Congress from the State of Michigan	499
Wolf, Robert A., head of Transportation Research Department, Aeronautical Laboratory, Cornell University	692
Wydler, Hon. John W., a Representative in Congress from the State of New York	448
Young, Hon. Fred, Member of Ontario Provincial Parliament, Toronto, Canada	449, 462
Zagri, Sidney, legislative counsel, International Brotherhood of Teamsters Union	347
Additional material submitted for the record by—	
American Association for Automotive Medicine:	
Letter dated May 2, 1966, from Dr. John States, president	550
Statement	544
Americans for Democratic Action: Resolution adopted at 19th annual convention, April 22-24, 1966	542
Automobile Manufacturers Association:	
Automotive consumption of selected raw materials, 1963 (chart)	267
Letter dated May 2, 1966, re auto industry's expenditures on design and safety	473
Letter dated May 18, 1966, replying to questions asked by several members of the committee	338
New car retail price compared with Consumer Price Index, 1957-65 (chart)	266
Reply to 28 questions propounded by Congressman Mackay	339
Safety performance standards, proposed	
Statement	252
States repealing motor vehicle inspection statutes (table)	346
Commerce, Department of:	
Accidents involving Government-owned or leased motor vehicles for a recent 5-year period	154
Table I—Total number of injuries to civilian Federal employees from vehicular accidents, 1959-63	156
Table II—Fatal injuries to civilian Federal employees from vehicular accidents, 1959-63	157
"Baldwin amendment" standards and standards under title III, H.R. 13228	185
Bureau of Public Roads:	
Lighting on Federal-aid highway systems	169
Traffic safety personnel	153
Cost estimate of driver education based on projected number of persons reaching age 14, 1965-72	199
Estimated apportionment of Federal funds to States for highway safety programs authorized by section 402 of proposed Traffic Safety Act of 1966 (H.R. 13228) (table)	189
Letter from Hon. Harley O. Staggers to Hon. John Connor re State traffic safety programs	206



Additional material submitted for the record by—Continued	
Commerce, Department of—Continued	Page
Letter from Robert E. Giles, General Counsel, re section 307 of H.R. 13228, which provides for the use of reports by Federal personnel on individual traffic accidents	141
Motor vehicle accidents involving Department of Commerce vehicles, 1964 and 1965	155
Role of the vehicle in highway safety	149
Sources of data drawn upon in developing the President's safety program and the Traffic Safety Act of 1966	195
Standards:	
Amendments to vehicle performance	160
State participation in preparation of	168
Summary of State traffic safety programs	207
Comparison of sworn uniformed and civilian personnel, 1940 and 1964 (table)	219
Disbursements of police agencies for traffic and related functions, 1964 (table)	217
Motor vehicle deaths by States, 1962-64 (table)	211
National motor vehicle inspection status (map)	220
Police training legislation (map)	216
States with driver education financial support legislation, 1947-65 (map)	212
States with vehicle inspection programs:	
State appointed stations, January 1, 1966 (table)	221
State owned and operated stations, January 1, 1966 (table)	221
Status of adoption by States of uniform traffic control device manuals, February 1, 1966 (map)	214
Survey of State requirements for motor vehicle operators (table)	213
Title III grants, use of, by States	190
Traffic safety research program	191
Cornell Aeronautical Laboratory, Inc., Cornell University:	
Appendix A—Basic requirements for highway transportation research	696
Appendix B—Automotive crash-injury research bulletin No. 2	701
Injury risk index by type of principal impact (table)	696
DeRemer, John B., North Canton, Ohio, statement of	534
Devine, Hon. Samuel L.: "A Basic System of Sudden Danger Warnings for Turnpikes and Interstate Freeways," article from the Journal of the American Society of Safety Engineers, March 1966	582
Dixon, Hon. Paul Rand, Chairman, Federal Trade Commission, statement before Senate Commerce Committee, May 25, 1965	44
Farnsley, Hon. Charles P.: "Impact of Street Lighting on Crime and Traffic Accidents," report prepared by Library of Congress	176
General Services Administration:	
Automotive safety standards:	
Eight deferred standards for Federal vehicles, included in revised list of 25	627
Existing standards (17) for Federal vehicles	628
Five deferred standards for Federal vehicles, included in original proposed list of 30	627
Proposed revision of standards for Federal vehicles	652
Letter to Congressman Mackay dated May 26, 1966, re reporting procedures on accidents involving Federal vehicles	672
Horton, Hon. Frank:	
Letter from the American Trial Lawyers Association, supporting H.R. 11891	88
Letter from the Automobile Club of Rochester to Mr. George F. Kachlein, Jr., supporting H.R. 11891	88
Insurance Institute for Highway Safety:	
Recommendations for Federal traffic safety standards	434
Reply to 28 questions propounded by Congressman Mackay	432
Statement	429

## Additional material submitted for the record by—Continued

International Teamsters Union:	
"Hope Anti-Jackknife Device," article from Fleet Owner, March 1966	Page 357
Letter from Edward Hensley, Bristol, Tenn., dated April 15, 1966	354
Letter from National Safety Council dated September 28, 1965, re antijackknife device	388
Safti-Stabilizer, description and application	359
Jewell, John R., Maryland commissioner of motor vehicles: Analysis of proposed bills	684
Mackay, Hon. James A.:	
Deaths per 10 billion vehicle-miles traveled (table)	64
List of cosponsors of bill to establish a national traffic safety agency	61
Motor vehicle deaths, table prepared by the Public Health Service	63
Traffic safety memorandum and workbook, listing key unresolved issues	302
Morris, Hon. Thomas G.: Proposed amendments to H.R. 13228	221
National Education Association:	
Bibliography, driver education	113
Supplemental report on driver education:	
Exhibit I—Driver error, a primary cause of traffic accidents	109
Exhibit II—Summary information, value of driver education	110
Exhibit III—Cost estimates:	
1. Funds to make driver education a reality for all eligible boys and girls in all States of the United States (table)	112
2. Funds for research aimed at improvement of instruction	112
3. Funds to assure improved preparation of teachers of drivers and traffic safety education (table)	113
4. Funds for State-level supervision of driver education	113
Summary of recommendations	107
Ages at which drivers may be licensed to operate a motor vehicle (table)	108
National Professional Driver Education Association, Inc.:	
Safe driver performance evaluation chart (exhibits A and B)	727, 728
Statement	721
"Teen-Aged Driver, The," a study by the California Department of Motor Vehicles (February 1965)	737
Chart III—Average number of violations for trained and untrained drivers, by sex (1-year record)	740
Chart IV—Average number of accidents for trained and untrained drivers, by sex (1-year record)	741
Chart V—Results of statistical tests, by sex	744
Table 1—Accidents and violations by age and response category	748
Table 2—Accidents and violations by age and sex	749
Table 3—Miles driven in 1963, by age and accident rate	750
Table 5—Accidents and violations per 100,000 miles, by miles driven in 1963	751
Table 8—High school driver training, by violations and accidents	752
"You Have a Big Stake in High School Driver Training," article from Business Briefs, August 1959	755
National Tire Dealers & Retreaders Association, Inc.: Standards for treading tires	494
Ribicoff, Hon. Abraham:	
Article from Car Life, April 26, 1966	592
"Safety Hysteria," editorial from Car Life, May 1966	593
Scalise, Lawrence F., attorney general, State of Iowa:	
Automobiles involved in accidents, February 1966 (table)	416
Automobiles involved in accidents, March 1966 (table)	417

## Additional material submitted for the record by—Continued

Scalise, Lawrence F., attorney general, State of Iowa—Continued	
Common contributing factors for causing accidents, February 1966 (table)-----	Page 416
Common contributing factors for causing accidents, March 1966 (table)-----	417
"Mechanism of Motor Vehicle Injuries," article by Dr. George W. Brown-----	414
Speno, Hon. Edward J., State senator, State of New York: Letter dated May 26, 1966, to Hon. Harley Staggers, with attachments---	485
States, Dr. John D., president, American Association for Automotive Medicine, statement of-----	544
Vehicle Equipment Safety Commission:	
Chronological history of Beamer resolution, Vehicle Equipment Safety Compact, and Vehicle Equipment Safety Commission--	771
Roster of membership of Commissioners in VESC-----	772



## TRAFFIC SAFETY

---

TUESDAY, MARCH 15, 1966

HOUSE OF REPRESENTATIVES,  
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,  
*Washington, D.C.*

The committee met at 10 a.m., pursuant to call, in room 2123, Rayburn House Office Building, Hon. Harley O. Staggers (chairman) presiding.

The CHAIRMAN. The committee will come to order.

Today we will commence hearings on a subject that has long needed more attention, more work, and more intelligent investment. That subject is the traffic safety problem of the United States.

Almost half of the Americans who died in accidents last year lost their lives through the use, or the misuse, of motor vehicles; 49,000 lives were lost by reason of motor vehicle accidents out of a total of 105,000 in all forms of accidents.

We hear a great deal about air safety. We recently held some sessions concerning a series of Boeing 727 accidents. Air safety receives a tremendous amount of effort and attention. Motor vehicle safety should receive no less.

It is encouraging to see how much interest has been generated on this subject of traffic safety in recent months. The President laid great stress on the necessity for prompt and far-reaching action, and at the administration's request, I introduced a bill entitled "The Traffic Safety Act of 1966," H.R. 13228. It is expected that Secretary of Commerce Connor will appear later this week in support of this legislation.

In addition to this extensive proposal, the committee has before it legislation introduced by our colleague from Georgia, Congressman Mackay, which would establish a National Traffic Safety Agency. Twenty-five other Congressmen, including Mr. Moss and Mr. Farnsley, members of this committee, have filed companion bills in support of the National Traffic Safety Agency proposal.

Then we have a group of bills providing for safety devices on motor vehicles, certificates of fitness for motor vehicles, and similar proposals which are aimed primarily at the automobile or motor vehicle part of the problem.

We also have a group of bills proposing standards and enforcement procedures which would control the quality and identify the caliber of automobile tires.

So you can see that this will be a full-scale hearing. It is the intention of the committee to make a thorough record so that the Congress may achieve the most desirable solution to this most serious

problem. Without objection the bills, together with a brief identification of them, will be included in the record.

(The bills referred to, and agency reports thereon, follow:)

#### DESCRIPTION OF TRAFFIC, VEHICLE, AND TIRE SAFETY BILLS

These bills fall generally into four categories: 1) the Traffic Safety Act of 1966; 2) bills to create a "national traffic safety agency"; 3) bills concerned with safety devices, vehicle performance standards, and prototype cars; and 4) safety standards for vehicle tires.

#### I. TRAFFIC SAFETY ACT OF 1966

H.R. 13228—Staggers, W. Va.

H.R. 13348—Friedel, Md.

H.R. 14701—Murphy, N.Y.

H.R. 14806—Schmidhauser, Iowa (uses short title of "Motor Vehicle Safety Act of 1966", otherwise comparable)

[H.R. 13228, 89th Cong., 2d sess.]

A BILL To provide for a coordinated national safety program and establishment of safety standards for motor vehicles in interstate commerce to reduce traffic accidents and the deaths, injuries, and property damage which occur in such accidents

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That this Act may be cited as the "Traffic Safety Act of 1966".

SEC. 2. The Congress hereby declares that the purpose of this Act is to reduce traffic accidents and the deaths, injuries, and property damage resulting from traffic accidents. To this end, the Secretary of Transportation shall have authority to establish motor vehicle safety standards for motor vehicles and equipment in interstate commerce; to undertake and support necessary safety research and development; and to encourage and provide financial assistance in developing State traffic safety programs under effective standards for drivers, motor vehicles, postaccident care and the traffic environment, including highways.

#### TITLE I—MOTOR VEHICLE SAFETY STANDARDS

##### DEFINITIONS

SEC. 101. As used in this title—

(a) "Motor vehicle safety" means the performance of motor vehicles or motor vehicle equipment in such a manner that the public is protected against unreasonable risk of accidents occurring as a result of the design of motor vehicles and is also protected against unreasonable risk of death, injury or property damage in the event accidents do occur.

(b) "Motor vehicle safety standard" means a minimum standard for motor vehicle performance, or motor vehicle equipment performance, which is practicable, which meets the need for motor vehicle safety and which provides objective criteria on which the public may rely in assuring motor vehicle safety.

(c) "Motor vehicle" means any vehicle driven or drawn, by mechanical or other power, primarily for use on the public roads, streets and highways, other than (1) a vehicle subject to safety regulations under part II of the Interstate Commerce Act, as amended (chapter 8, title 49 of the United States Code), or under the Transportation of Explosives Act as amended (sections 831-835 of chapter 39, title 18 of the United States Code), and (2) a vehicle or car operated exclusively on a rail or rails.

(d) "Motor vehicle equipment" means any system, part or component of a motor vehicle as originally manufactured or any similar part or component manufactured or sold for replacement or improvement of such system, part or component or as an accessory or addition to the motor vehicle.

(e) "State" means any State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, or any territory or possession of the United States.

(f) "Interstate commerce" means commerce between any place in a State and any place in another State, or between places in the same State through another State.

(g) "Secretary" means Secretary of Transportation.



## FEDERAL MOTOR VEHICLE SAFETY STANDARDS

SEC. 102. (a) The Secretary shall, from time to time, review existing public and private motor vehicle safety standards and the degree of effective compliance existing with respect to such standards. If, at any time after two years from the date of the enactment of this Act, he determines that there is a need for a new or revised motor vehicle safety standard and that—

(1) no motor vehicle safety standard exists;

(2) any existing motor vehicle safety standard is inadequate to protect the public against unreasonable risk of accidents or of death, injury, or property damage resulting therefrom, as defined in section 101(a);

(3) any existing motor vehicle safety standard is not based upon all measurements of performance necessary to the achievement of motor vehicle safety; or

(4) the degree of effective compliance with respect to any existing motor vehicle safety standard is insufficient to achieve adequate motor vehicle safety; then the Secretary is authorized to establish and issue by order, in accordance with section 4 of the Administrative Procedure Act, appropriate Federal motor vehicle safety standards for motor vehicles or motor vehicle equipment.

(b) A Federal motor vehicle safety standard issued by order pursuant to subsection (a) shall become effective on a date specified by the Secretary in that order, which shall be no sooner than one hundred and eighty days nor later than two years from the date on which the standard is issued. No State or local government law, regulation, or ordinance shall establish a safety standard for a motor vehicle or item of motor vehicle equipment in interstate commerce if a Federal motor vehicle safety standard issued in conformance with the provisions of this title is in effect with respect to that motor vehicle or item of motor vehicle equipment; and any such law, regulation, or ordinance purporting to establish such safety standards and providing a penalty or punishment for an act of noncompliance therewith shall be null, void, and of no effect. However, nothing herein shall be construed to prevent a State or local government or the Federal Government from establishing requirements more stringent than a Federal motor vehicle safety standard for the exclusive purpose of its own procurement.

(c) The Secretary, from time to time, and subject to section 4 of the Administrative Procedure Act, may by order amend or withdraw Federal motor vehicle safety standards issued under this section. Amendments or withdrawals shall be effective on the date specified by the Secretary in that order, which shall be no sooner than one hundred and eighty days nor later than one year from the date on which the amendment or withdrawal is issued, unless the Secretary finds, publishing his reasons therefor, that an earlier or later date is in the public interest.

## JUDICIAL REVIEW OF ORDERS

SEC. 103. (a) (1) In a case of actual controversy as to the validity of any order under section 102, any person who will be adversely affected by such order when it is effective may at any time prior to the forty-fifth day after such order is issued file a petition with the United States court of appeals for the circuit wherein such person resides or has his principal place of business, for a judicial review of such order. A copy of the petition shall be forthwith transmitted by the clerk of the court to the Secretary or other officer designated by him for that purpose. The Secretary thereupon shall file in the court the record of the proceedings on which the Secretary based his order, as provided in section 2112 of title 28 of the United States Code.

(2) If the petitioner applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Secretary, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Secretary, and to be adduced upon the hearing, in such manner and upon such terms and conditions as to the court may seem proper. The Secretary may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken, and he shall file such modified or new findings, and his recommendation, if any, for the modification or setting aside of his original order, with the return of such additional evidence.



(3) Upon the filing of the petition referred to in paragraph (1) of this subsection, the court shall have jurisdiction to affirm the order, or to set it aside in whole or in part, temporarily or permanently. The findings of the Secretary as to the facts, if supported by substantial evidence, shall be conclusive.

(4) The judgment of the court affirming or setting aside, in whole or in part, any such order of the Secretary shall be final, subject to review by the Supreme Court of the United States upon certiorari or certification as provided in section 1254 of title 28 of the United States Code.

(5) Any action instituted under this subsection shall survive notwithstanding any change in the person occupying the office of Secretary or any vacancy in such office.

(6) The remedies provided for in this subsection shall be in addition to and not in substitution for any other remedies provided by law.

(b) A certified copy of the transcript of the record and proceedings under this section shall be furnished by the Secretary to any interested party at his request, and payment of the costs thereof, and shall be admissible in any criminal, libel for condemnation, exclusive of imports, or other proceeding arising under or in respect to this title, irrespective of whether proceedings with respect to the order have previously been instituted or become final under subsection (a).

#### RESEARCH, TESTING, AND DEVELOPMENT

SEC. 104. The Secretary, in cooperation with other departments and agencies as provided in section 113, is authorized to undertake appropriate research, testing, and development for motor vehicle safety and motor vehicle safety standards to accomplish the purposes of this title and, in exercising this authority, may perform the following functions:

(a) gathering or collecting existing data from any source for the purpose of determining the relationship between motor vehicle or motor vehicle equipment performance characteristics and (1) accidents involving motor vehicles, and (2) the occurrence of death, personal injury or property damage resulting from such accidents;

(b) contracting for the fabrication of or directly purchasing, notwithstanding any other provision of law, motor vehicles or motor vehicle equipment for research and testing purposes, and the testing of motor vehicles and motor vehicle equipment to accomplish the purposes of this title, even though such tests may damage or destroy the vehicles or equipment being tested;

(c) selling or otherwise disposing of motor vehicles or motor vehicle equipment tested pursuant to subsection (b), notwithstanding any other provision of law, and reimbursing the proceeds of such sale or disposal into the appropriation or fund current and available for the purpose of carrying out this title: *Provided*, That motor vehicles and motor vehicle equipment which have been rendered irreparably unsafe for use on the highways, by testing pursuant to subsection (b), shall be sold or disposed of in a manner insuring that they shall not be used on the highways or on vehicles for use on the highways;

(d) performing or having performed all research, development and information gathering and disseminating activities necessary and appropriate for motor vehicle safety and motor vehicle safety standards, and purchasing or acquiring equipment and facilities related thereto, or fabricating needed motor vehicle equipment to accomplish the purposes of this title, including—

(1) relating motor vehicle and motor vehicle equipment performance characteristics to motor vehicle safety;

(2) determining the effects of wear and use of motor vehicles and motor vehicle equipment upon motor vehicle safety;

(3) evaluating and developing methods and equipment for testing, inspecting and determining safety of motor vehicles and motor vehicle equipment;

(4) evaluating and developing methods and equipment for determining adequacy of motor vehicle safety standards, and compliance of motor vehicles with motor vehicle safety standards; and

(5) developing appropriate motor vehicle safety standards.

(e) awarding grants to State or interstate agencies and nonprofit institutions for performance of activities authorized in this section.

## COOPERATION

SEC. 105. In addition to such advisory authority as the Secretary otherwise may exercise, he is authorized to advise, assist, cooperate with, or enter into cooperative agreements with and receive and expend funds made available thereunder by Federal agencies, State or other public agencies, businesses, universities or other institutions in the planning or development of:

- (a) motor vehicle safety standards;
- (b) method for inspecting or testing under motor vehicle safety standards;
- (c) motor vehicle and motor vehicle equipment test methods and test equipment.

## TRAINING

SEC. 106. (a) The Secretary is authorized to train, or establish training programs for, personnel of Federal agencies, State or other public agencies or institutions, private firms and private institutions by grants to or contracts with such agencies, firms or institutions for the purpose of achieving motor vehicle safety as provided in this title. He may receive and expend funds made available under a cooperative agreement or utilize motor vehicles or motor vehicle equipment furnished thereunder for training purposes. Such training may include:

- (1) interpreting and applying motor vehicle safety standards;
- (2) using test methods and test equipment;
- (3) testing and inspecting motor vehicles and motor vehicle equipment to determine motor vehicle safety; or
- (4) such other training as may be necessary to carry out this title.

(b) The Secretary may purchase, use and dispose of motor vehicles or motor vehicle equipment for use, other than for purposes of transportation, in the training authorized by subsection (a), under the same authority, and subject to the same conditions, as provided in section 104.

## PROHIBITED ACTS

SEC. 107. (a) No person shall—

(1) manufacture for sale, sell, offer for sale, or introduce or deliver for introduction in interstate commerce, or import into the United States, any motor vehicle or item of motor vehicle equipment manufactured on or after the date any applicable Federal motor vehicle safety standard takes effect under this title unless it is in conformity with such standard as prescribed or amended by the Secretary pursuant to section 102 except as provided in subsection (b) of this section; or

(2) fail or refuse access to or copying of records, or fail to make reports or provide information, as required under section 111(b).

(b) (1) Paragraph (1) of subsection (a) shall not apply to the sale, the offer for sale, or the introduction or delivery for introduction in interstate commerce of any motor vehicle or motor vehicle equipment after the first purchase of it in good faith for purposes other than resale.

(2) A motor vehicle or item of motor vehicle equipment offered for importation in violation of paragraph (1) of subsection (a) shall be refused admission into the United States under joint regulations issued by the Secretary of the Treasury and the Secretary; except that the Secretary of the Treasury and the Secretary may, by such regulations, provide for authorizing the importation of such motor vehicle or item of motor vehicle equipment into the United States upon such terms and conditions (including the furnishing of a bond) as may appear to them appropriate to insure that any such motor vehicle or item of motor vehicle equipment will be brought into conformity with any applicable Federal motor vehicle safety standard prescribed under this title, or will be exported or abandoned to the United States.

(3) The Secretary of the Treasury and the Secretary may, by joint regulations, permit the temporary importation of any motor vehicle or item of motor vehicle equipment, after the first purchase of it in good faith for purposes other than resale, notwithstanding paragraph (2) of this subsection.

(4) Paragraph (1) of subsection (a) shall not apply in the case of a motor vehicle or item of motor vehicle equipment intended solely for export, and so labeled or tagged on the vehicle or item itself and on the outside of the container, if any.



## CIVIL PENALTY

SEC. 108. (a) Whoever violates any provision of section 107, or any regulation issued thereunder, shall be subject to a civil penalty of not to exceed \$1,000 for each such violation. Such violation of a provision of section 107, or regulations issued thereunder, shall constitute a separate violation with respect to each motor vehicle or item of motor vehicle equipment or with respect to each failure or refusal to allow or perform an act required thereby.

(b) Any such civil penalty may be compromised by the Secretary. The amount of such penalty, when finally determined, or the amount agreed upon in compromise, may be deducted from any sums owing by the United States to the person charged.

## JURISDICTION: INJUNCTION

SEC. 109. (a) The United States district courts and the United States courts of the Commonwealth of Puerto Rico and the territories and possessions shall have jurisdiction, for cause shown and subject to the provisions of rule 65 (a) and (b) of the Federal Rules of Civil Procedure, to restrain violations of this title upon petition by the appropriate United States Attorney or the Attorney General on behalf of the United States.

(b) In any proceeding for criminal contempt for violation of an order, injunction or restraining order issued under this section, which violation also constitutes a violation of this title, trial shall be by the court or, upon demand of the accused, by a jury. Such trial shall be conducted in accordance with the practice and procedure applicable in the case of proceedings subject to the provisions of rule 42(b) of the Federal Rules of Criminal Procedure.

(c) In all libel or injunction proceedings for the enforcement or to restrain violations of this title, subpoenas for witnesses who are required to attend a court of the United States in any district may run into any other district in any such proceeding.

## SEIZURE

SEC. 110. (a) Any motor vehicle or motor vehicle equipment that has been manufactured or introduced into commerce in violation of section 107 shall be liable to be proceeded against by the United States while in interstate commerce, or while held for any sale after shipment in interstate commerce until the occurrence of the first purchase of it in good faith for purposes other than resale, or libel of information and condemned in any district court of the United States and in any United States court for the Commonwealth of Puerto Rico or the territories and possessions.

(b) Such motor vehicle or item of motor vehicle equipment shall be liable to seizure by process pursuant to the libel, and the procedure in cases under this section shall conform, as nearly as may be, to the procedure in admiralty; except that on demand of either party any issue of fact joined in any such case shall be tried by jury. When libels for condemnation proceedings under this section, involving the same claimant, are pending in two or more jurisdictions, such pending proceedings, upon application of the United States or the claimant seasonably made to the court of one such jurisdiction, shall be consolidated for trial by order of such court, and tried in (1) any district selected by the applicant where one of such proceedings is pending; or (2) a district agreed upon by stipulation between the parties. If no order for consolidation is so made within a reasonable time, the United States or the claimant may apply to the court of one such jurisdiction, and such court (after giving the other party, the claimant, or the United States attorney for such district, reasonable notice and opportunity to be heard) shall by order, unless good cause to the contrary is shown, specify a district of reasonable proximity to the claimant's principal place of business, in which all such pending proceedings shall be consolidated for trial and tried. Such order of consolidation shall not apply so as to require the removal of any case the date for trial of which has been fixed. The court granting such order shall give prompt notification thereof to the other courts having jurisdiction of the case covered thereby.

(c) Any motor vehicle or item of motor vehicle equipment condemned under this section shall, after entry of the decree, be disposed of by destruction or sale as the court may, in accordance with the provisions of this section, direct and the proceeds thereof, if sold, less the legal costs and charges, shall be paid into the Treasury of the United States, but such motor vehicle or item of motor



vehicle equipment shall not be sold under such decree contrary to the provisions of this Act or the laws of the jurisdiction in which sold: *Provided*, That, after entry of the decree and upon the payment of the costs of such proceedings and the execution of a good and sufficient bond conditioned that such motor vehicle or item of motor vehicle equipment shall not be sold or disposed of contrary to the provisions of this Act or the laws of any State or territory in which sold, the court may by order direct that such motor vehicle or item of motor vehicle equipment be delivered to the owner thereof to be destroyed or brought into compliance with the provisions of this Act under the supervision of an officer or employee duly designated by the Secretary, and the expenses of such supervision shall be paid by the person obtaining release of the motor vehicle or item of motor vehicle equipment under bond.

(d) When a decree of condemnation is entered against the motor vehicle or item of motor vehicle equipment, court costs and fees, and storage and other proper expenses, shall be awarded against the person, if any, intervening as claimant of the motor vehicle or item of motor vehicle equipment.

(e) In the case of removal for trial of any case as provided by subsection (b) of this section—

(1) the clerk of the court from which removal is made shall promptly transmit to the court in which the case is to be tried all records in the case necessary in order that such court may exercise jurisdiction;

(2) the court to which such case is removed shall have the powers and be subject to the duties, for purposes of such case, which the court from which removal was made would have had, or to which such court would have been subject, if such case had not been removed.

#### INSPECTION AND TESTING FOR COMPLIANCE; RECORDS AND REPORTS

SEC. 111. (a) The Secretary is authorized to conduct such testing and inspection as he deems necessary to aid in the enforcement of Federal vehicle safety standards issued and in effect under this title and shall furnish the Attorney General and, when appropriated, the Secretary of the Treasury any information obtained and test results indicating noncompliance with such standards, for appropriate enforcement or customs action.

(b) Every manufacturer of motor vehicles and motor vehicle equipment shall establish and maintain such records, make such reports, and provide such information as the Secretary may reasonably require to enable him to determine whether such manufacturer has acted or is acting in compliance with this title and motor vehicle safety standards prescribed pursuant to this title and shall, upon request of an officer or employee duly designated by the Secretary, permit such officer or employee to inspect appropriate books, papers, records, and documents.

(c) All information reported to or otherwise obtained by the Secretary or his representative pursuant to subsection (b) which information contains or relates to a trade secret or other matter referred to in section 1905 of title 18 of the United States Code, shall be considered confidential for the purpose of that section, except that such information may be disclosed to other officers or employees concerned with carrying out this Act or when relevant in any proceeding under this Act.

#### BRAKE FLUID AND SEAT BELT STANDARDS

SEC. 112. (a) Public Law 87-637 (Act of September 5, 1962, 76 Stat. 437, 15 U.S.C. 1301-1303), and Public Law 88-201 (Act of December 13, 1963, 77 Stat. 361, 15 U.S.C. 1321-1323) are hereby repealed. Any rights or liabilities now existing under Public Laws 87-637 and 88-201 shall not be affected by this repeal.

(b) Standards issued under the laws repealed in this section shall continue in full effect and may be amended as if they had been effectively issued pursuant to section 102. Such standards shall, after enactment of this Act, be subject to the enforcement and all other provisions of this title.

#### AVOIDANCE OF DUPLICATION

SEC. 113. The Secretary, in exercising the authority under this Act, shall utilize the services, research and testing facilities of other departments and agencies to the maximum extent practicable in order to avoid duplication in facilities and services operated by the departments and agencies.

## REGULATIONS

SEC. 114. The Secretary is authorized to issue, amend and withdraw such rules and regulations as he may find necessary or appropriate to carrying out the provisions of this Act.

## APPROPRIATIONS

SEC. 115. There is authorized to be appropriated, from the highway trust fund, for the purpose of carrying out the provisions of this title, not to exceed \$3,000,000 for fiscal year 1967, \$6,000,000 for fiscal year 1968, and \$9,000,000 for each of the fiscal years 1969, 1970, 1971, and 1972 and funds appropriated under this authority shall remain available until expended.

## TITLE II—TRAFFIC ACCIDENT AND INJURY RESEARCH AND TEST FACILITY

SEC. 201. The Secretary of Transportation is hereby authorized, acting independently or in cooperation with other Federal departments or agencies, to plan, design, construct, maintain, and operate a facility or facilities, within the District of Columbia or elsewhere, in which to conduct so much of the research development, and testing provided for by this Act, and other research, development, and testing in traffic safety authorized by law, as he may deem appropriate and necessary.

SEC. 202. There is hereby authorized to be appropriated, out of the highway trust fund, not to exceed \$3,000,000 for the planning of the facility or facilities authorized by section 201 of this Act, including necessary feasibility studies. Any funds so appropriated shall remain available until expended.

SEC. 203. There is hereby authorized to be appropriated, out of the highway trust fund, so much as may be necessary for the construction of the facility or facilities authorized by section 201 of this Act. Any funds so appropriated shall remain available until expended.

## TITLE III—HIGHWAY SAFETY

SEC. 301. Title 23, United States Code, is hereby amended by adding at the end thereof a new chapter:

## "CHAPTER 4—HIGHWAY SAFETY

"Sec.

"401. Authority of the Secretary.

"402. Highway safety programs.

"403. Highway safety research and development.

"404. National driver register.

## "§ 401. Authority of the Secretary

"The Secretary is authorized and directed to assist and cooperate with other Federal departments and agencies, State and local governments, private industry, and other interested parties, to increase highway safety.

## "§ 402. Highway safety programs

"(a) The Secretary shall encourage and assist each of the States to establish a highway safety program designed to reduce traffic accidents and deaths, injuries, and property damage resulting therefrom. Such programs should be in accordance with uniform standards approved by the Secretary which standards shall include, but not be limited to, provisions for an effective accident record system, measures calculated to improve driver performance, vehicle safety, highway design and maintenance, traffic control, and surveillance of traffic for detection and correction of high or potentially high accident locations.

"(b) Any funds authorized to be appropriated to aid the States to conduct the highway safety programs described in subsection (a) shall be subject to a deduction for the necessary costs of administering the provisions of this section, and the remainder shall be apportioned among the several States as follows: 75 per centum on the basis of population and 25 per centum as the Secretary in his administrative discretion may deem appropriate. All provisions of chapter 1 of this title that are applicable to Federal-aid primary highway funds (except the apportionment formula), including the provisions relating to obligation, period of availability, Federal share payable and expenditure of such funds,



shall govern the administration of the highway safety funds authorized to be appropriated to carry out this section, except as determined by the Secretary to be inconsistent with this section. However, the Secretary shall apportion to the States any funds authorized for the purposes of this section for the fiscal year ending June 30, 1967, as soon as they shall be authorized. Where the term 'State highway department' is used in chapter 1 of this title it shall mean the applicable State highway safety agency for the purposes of this section.

"(c) The Secretary may make arrangements with other Federal departments and agencies for assistance in the preparation of uniform standards for the highway safety programs contemplated by subsection (a) and in the administration of such programs. Such departments and agencies are directed to cooperate in such preparation and administration, on a reimbursable basis.

#### "§ 403. Highway safety research and development

"For the purpose of strengthening the highway safety program of the Federal Government, the Secretary is authorized to expand the highway safety research and development activities under section 307 (a) of title 23, United States Code, to cover all aspects of highway safety which shall include, but not be limited to, highway safety systems research and development relating to vehicle, highway, and driver characteristics, accident investigations, communications, emergency medical care, and transportation of the injured. The Secretary may use the funds appropriated for any fiscal year for the purposes of this section, independently or in cooperation with other Federal departments or agencies, for grants to State or local agencies, institutions, and individuals for training or education of highway safety personnel, research fellowships in highway safety, development of improved accident investigation procedures, community emergency medical service plans, demonstration projects and for related activities which are deemed by the Secretary to be necessary to carry out the purposes of this section.

#### "§ 404. National Driver Register service

"(a) The Secretary shall establish and maintain a register containing the name of each individual reported to him by a State, or political subdivision thereof, as an individual with respect to whom such State or political subdivision has denied, terminated, or temporarily withdrawn (except a withdrawal for less than six months based on habitual violation) an individual's license or privilege to operate a motor vehicle. Such register shall also contain such other information as the Secretary may deem appropriate to carry out the purposes of this section.

"(b) The Secretary shall, at the request of any State, or political subdivision thereof, or at the request of any Federal department or agency, furnish such information as may be contained in the register established under subsection (a) with respect to any individual applicant for a motor vehicle operator's license or permit.

"(c) As used in this section, the term "State" includes each of the several States, the Commonwealth of Puerto Rico, the District of Columbia, Guam, the Virgin Islands, the Canal Zone, and American Samoa."

SEC. 302. (a) The Act of July 14, 1960 (74 Stat. 526), as amended by the Act of October 4, 1961 (75 Stat. 779), is hereby repealed.

(b) Sections 135 and 313 of title 23 of the United States Code are hereby repealed.

(c) (1) The analysis of chapter 1 of title 23, United States Code, is hereby amended by deleting:

"135. Highway safety programs."

(2) The analysis of chapter 3 of title 23, United States Code, is hereby amended by deleting:

"313. Highway safety conference."

(3) There is hereby added at the end of the table of chapters at the beginning of title 23, United States Code, the following:

#### "CHAPTER 4—HIGHWAY SAFETY"

SEC. 303. For the purpose of carrying out section 402 of title 23, United States Code, there is hereby authorized to be appropriated, out of the highway trust fund, the sum of \$40,000,000 for the fiscal year ending June 30, 1967;



\$60,000,000 for the fiscal year ending June 30, 1968; \$60,000,000 for the fiscal year ending June 30, 1969; \$80,000,000 for the fiscal year ending June 30, 1970; \$80,000,000 for the fiscal year ending June 30, 1971; and \$100,000,000 for the fiscal year ending June 30, 1972.

SEC. 304. For the purpose of carrying out section 403 of title 23, United States Code, there is hereby authorized to be appropriated, out of the highway trust fund, the additional sum of \$10,000,000 for the fiscal year ending June 30, 1967; \$20,000,000 for the fiscal year ending June 30, 1968; \$25,000,000 for the fiscal year ending June 30, 1969; \$30,000,000 for the fiscal year ending June 30, 1970; \$35,000,000 for the fiscal year ending June 30, 1971; and \$40,000,000 for the fiscal year ending June 30, 1972. Funds appropriated under the authority of this section shall be available for necessary costs in administering the provisions of section 403, and shall remain available until expended.

SEC. 305. Section 101(a) of title 23, United States Code, is hereby amended by adding the following term at the end thereof: "The term 'State highway safety agency' means those departments, commissions, boards, or officials of any State charged by its laws with the responsibility for administering the State highway safety program, or any part thereof."

SEC. 306. Section 105 of title 23, United States Code, is hereby amended by adding the following subsection at the end thereof:

"(e) In approving programs for projects on the Federal-aid systems pursuant to chapter 1 of this title, the Secretary shall give priority to those projects which incorporate improved standards and features with safety benefits."

SEC. 307. No part of any report or reports of any Federal agency, or officers, employee or agent thereof, relating to any highway traffic accident or the investigation thereof conducted pursuant to this Act or other applicable law, shall be admitted as evidence or use in any action for damages or criminal action, nor shall any such officer, employee or agent be required to testify in such proceedings as to facts developed in such investigations. Any such report or reports of any such officer, employee or agent shall be made available with the approval of the Secretary of Transportation only to Federal departments or agencies, State or local agencies, or persons or organizations engaged in research into highway safety: *Provided however*, That compilations of such reports may be made available to the public if individuals and individual accidents are not identified.

SEC. 308. Nothing contained in this Act shall be deemed to supersede the authority under existing law of any Federal department or agency.

---

EXECUTIVE OFFICE OF THE PRESIDENT,  
BUREAU OF THE BUDGET,  
Washington, D.C., March 25, 1966.

HON. HARLEY O. STAGGERS,  
*Chairman, Committee on Interstate and Foreign Commerce,*  
*House of Representatives, Washington, D.C.*

DEAR MR. CHAIRMAN: This is in reply to your request for the views of the Bureau of the Budget on H.R. 13228, a bill "To provide for a coordinated national safety program and establishment of safety standards for motor vehicles in interstate commerce to reduce traffic accidents and the deaths, injuries and property damage which occur in such accidents," and on other bills relating to traffic safety.

H.R. 13228 would give to the Secretary of Transportation discretionary authority to set safety standards for motor vehicles sold in interstate commerce; would authorize the Secretary to conduct and contract for research to determine appropriate safety standards; would authorize the planning, construction and operation of a Traffic Accident and Injury Research and Test Facility; would authorize grants to States on a matching basis to aid them in the development of comprehensive State highway safety programs which would be in accordance with standards approved by the Secretary; would authorize research into all phases of highway safety; and would authorize the establishment of a National Driver Register.

As the Administration bill, H.R. 13228 contains the President's major recommendations on traffic safety as set forth in his recent Transportation Message.

This bill will provide a vigorous systematic attack on the problem of death, injury and destruction on the Nation's highways. The bill gives Federal leadership to the drive for increased traffic safety but maintains the traditional co-operation between State and Federal authorities and between public and private efforts.

There are several bills before the Congress relating to traffic safety. In general, the objectives of these bills are consistent with the Administration's traffic safety goals. The Administration bill, however, combines the best features of these bills into a comprehensive, administratively flexible program which would systematically marshal the Nation's resources to reduce traffic accidents, deaths, injuries and damage.

For the foregoing reasons the Bureau of the Budget believes that the Administration's program, as embodied in H.R. 13228, represents the most effective approach to increased traffic safety and, therefore, strongly urges its enactment.

Sincerely yours,

WILFRED E. ROMMEL,  
*Acting Assistant Director for Legislative Reference.*

---

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,  
Washington, D.C., April 5, 1966.

HON. HARLEY O. STAGGERS,  
*Chairman, Committee on Interstate and Foreign Commerce,  
House of Representatives,  
Washington, D.C.*

DEAR MR. CHAIRMAN: This letter is in response to your request of March 4, 1966, for a report on H.R. 13228, a bill "To provide for a coordinated National safety program and establishment of safety standards for motor vehicles in interstate commerce to reduce traffic accidents and the deaths, injuries, and property damage which occur in such accidents."

The bill would provide authority for the Secretary of Transportation to establish motor vehicle safety standards for motor vehicles and equipment in interstate commerce; to undertake and support necessary safety research and development; and to encourage and provide financial assistance in developing State traffic safety programs under effective standards for drivers, motor vehicles, postaccident care and the traffic environment, including highways. It would authorize and direct the Secretary of Transportation to assist and co-operate with other Federal departments and agencies, State and local governments, private industry, and other interested parties, to increase highway safety.

The bill would direct the Secretary to review existing public and private motor vehicle safety standards. If at any time after two years from the date of enactment he determines that there is need for a new or revised motor vehicle safety standard, in the light of certain specified considerations, he would be authorized to establish and issue by order appropriate Federal motor vehicle safety standards for motor vehicles or motor vehicle equipment. To accomplish these purposes, the Secretary would be authorized to undertake appropriate research in cooperation with other Federal departments and agencies. Authority would also be granted for the Secretary, acting independently, or in cooperation with other Federal departments or agencies to plan, design, construct, maintain and operate a facility or facilities in which research development and testing would be conducted. By amendment of Section 301 of Title 23, United States Code, the Secretary would be authorized and directed to assist and cooperate with other Federal departments and agencies, State and local governments, private industry, and other interested parties, to increase highway safety. Each of the States would be assisted to establish a highway safety program including, but not limited to, provisions for an effective accident record system, measures to improve driver performance, vehicle safety, highway design and maintenance, traffic control, and surveillance of traffic for detection and correction of high or potentially high accident locations. He would also be authorized to expand the highway safety research and development activities under section 307(a) of Title 23, United States Code, to cover all aspects of highway safety, including, but not limited to, highway systems research and development relating to vehicle, highway and driver characteristics, accident investigations, emergency



medical care, and transportation of the injured. Appropriated funds could be used in cooperation with other Federal departments or agencies for grants to State or local agencies, institutions, and individuals for training or education of highway safety personnel, research fellowships in highway safety, development of improved accident investigation procedures, community emergency medical services plans, demonstration projects and related activities. The use of highway trust funds would be authorized for all of the foregoing purposes.

This bill would provide a needed total and coordinated Federal effort and program in highway safety. This Department has long recognized a need for increased, coordinated governmental efforts to deal more effectively with the problem of preventing the annual toll of motor vehicle deaths and motor vehicle injuries in the United States. The responsibility for action in preventing motor vehicle deaths and injuries must be shared by several departments of government and many voluntary and private agencies. This Department has a background of operating experience and professional competency to contribute to this coordinated effort. We have developed and are carrying out a realistic and comprehensive plan for overall injury reduction. This plan recognizes that the complex problems associated with motor vehicle deaths and injuries are such as to require the best effort of many public and private agencies and a variety of professional skills.

In furtherance of the objectives of this bill, we would anticipate continuing and expanding our efforts relating to the medical aspects of driver licensing, accident investigation, medical care of the injured, and driver and traffic safety education. We are pleased to note that section 307 would provide for maintaining confidentiality of individual special investigation reports, and that section 308 provides for maintaining existing responsibilities of other agencies in the areas of traffic safety and injury prevention.

In view of the significant benefits to the public welfare from a reduction of highway accidents, injuries and death which could result from the coordinated program proposed, we recommend enactment of H.R. 13228.

We are advised by the Bureau of the Budget that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely,

WILBUR J. COHEN,  
*Under Secretary.*

---

THE GENERAL COUNSEL OF THE TREASURY,  
*Washington, D.C., March 15, 1966.*

HON. HARLEY O. STAGGERS,  
*Chairman, Committee on Interstate and Foreign Commerce,  
House of Representatives, Washington, D.C.*

DEAR MR. CHAIRMAN: Reference is made to your request for the views of this Department on H.R. 13228, "To provide for a coordinated national safety program and establishment of safety standards for motor vehicles in interstate commerce to reduce traffic accidents and the deaths, injuries, and property damage which occur in such accidents."

The proposed legislation would authorize the Secretary of Transportation to establish and enforce motor vehicle safety standards and to assist States in establishing highway safety programs. Section 107 of the bill would, among other things, prohibit the importation of motor vehicles not conforming to standards but would authorize the Secretary of Transportation and the Secretary of the Treasury to permit the temporary importation of certain non-conforming vehicles.

The proposed legislation incorporates the provisions of the Traffic Safety Act of 1966, which was introduced in response to the recommendation of the President in his message of March 2, 1966 on the proposed Department of Transportation.

The Department recommends the enactment of H.R. 13228.

The Department has been advised by the Bureau of the Budget that there is no objection to the submission of this report to your Committee and that enactment of H.R. 13228 would be in accord with the program of the President.

Sincerely yours,

FRED B. SMITH,  
*Acting General Counsel.*



GENERAL SERVICES ADMINISTRATION,  
Washington, D.C., March 21, 1966.

HON. HARLEY O. STAGGERS,

Chairman, Committee on Interstate and Foreign Commerce, House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: Your letter of March 4, 1966, requested any comments that the General Services Administration may care to offer concerning H.R. 13228, 89th Congress, a bill "To provide for a coordinated national safety program and establishment of safety standards for motor vehicles in interstate commerce to reduce traffic accidents and the deaths, injuries, and property damage which occur in such accidents."

The bill would provide for a national program of highway safety, including intensification of research into the causes of highway accidents, improvement of minimum safety standards for the highway, vehicle, and driver, and for assistance and encouragement to the States to develop programs for improvement of highway safety.

As operator of one of the largest vehicular fleets in the United States, GSA is vitally concerned about highway safety. In addition, GSA has the responsibility, pursuant to Public Law 88-515 and sections 206(a)(4) and 211(a)(5) of the Federal Property and Administrative Services Act of 1949, as amended (40 U.S.C. 487(a)(4), 491(a)(5)), for prescribing standards for vehicles purchased by the Government. Pursuant to our authority, we have issued Federal Standard No. 515, which was published in the Federal Register on June 30, 1965 (30 F.R. 8319). GSA intends to revise this standard from year to year as the science of automotive safety advances.

We believe that a national program of highway safety such as that provided for in H.R. 13228 would substantially reduce the current toll in highway deaths and injuries. GSA, therefore, favors its early enactment.

If H.R. 13228 is enacted, GSA would be happy to share its experience in the field of automotive safety with the appropriate Federal authority, to assist in the development of safety standards under Title II of the bill, and to coordinate them with existing GSA standards.

The financial effects of this measure cannot be estimated.

The Bureau of the Budget has advised that there is no objection to the submission of this report to your Committee and that the enactment of H.R. 13228 would be in accord with the program of the President.

Sincerely yours,

LAWSON B. KNOTT, Jr., *Administrator.*

## II. NATIONAL TRAFFIC SAFETY AGENCY

H.R. 12548—Mackay, Ga.	H.R. 12674—St Germain, R.I.
H.R. 12549—Moss, Calif.	H.R. 12709—Culver, Iowa
H.R. 12550—Hansen, Iowa	H.R. 12786—Corman, Calif.
H.R. 12551—Love, Ohio	H.R. 12802—Whalley, Pa.
H.R. 12552—St. Onge, Conn.	H.R. 12900—McCarthy, N.Y.
H.R. 12553—Ashmore, S.C.	H.R. 12905—Multer, N.Y.
H.R. 12554—Hathaway, Mo.	H.R. 12921—Bolton, Ohio
H.R. 12555—Tuten, Ga.	H.R. 13003—Minshall, Ohio
H.R. 12556—Donohue, Mass.	H.R. 13154—Scheuer, N.Y.
H.R. 12557—Grider, Tenn.	H.R. 13267—Farnsley, Ky.
H.R. 12558—Hansen, Wash.	H.R. 13475—Krebs, N.J.
H.R. 12559—Machen, Md.	H.R. 13488—Ryan, N.Y.
H.R. 12560—Matsunaga, Hawaii	H.R. 13575—Murphy, N.Y.
H.R. 12561—Reinecke, Calif.	H.R. 14345—Hagan, Ga.
H.R. 12562—Weltner, Ga.	H.R. 14882—Davis, Ga.
H.R. 12593—Gibbons, Fla.	

These bills would establish a "National Traffic Safety Agency."

[H.R. 12548, 89th Cong., 2d sess.]

A BILL To amend Public Law 660, Eighty-sixth Congress, to establish a National Traffic Safety Agency to provide national leadership to reduce traffic accident losses by means of intensive research and vigorous application of findings, and for other purposes

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That the Act of July 14, 1960 (Public Law 660, Eighty-sixth Congress), as amended, is amended to read as follows: "That this Act may be cited as the National Traffic Safety Act.

#### "FINDINGS AND STATEMENT OF PURPOSE

"SEC. 2. (a) The Congress finds (1) that traffic accidents are the major cause of death of young people and, next to heart disease, cancer, and stroke, the principal cause of death and disability in the United States and are a menace to the public health and welfare; (2) that traffic accidents cause the American people direct financial losses each year in excess of \$9,000,000,000 and seriously disrupt the economic life of the Nation and impede the orderly and profitable flow of commerce; (3) that many factors contribute to traffic accidents—such as the lack of uniform traffic laws, highway signs and highway design, and the lack of adequate standards of safety incorporated into motor vehicles—and that these factors may be minimized or eliminated by a national effort for traffic safety; (4) that the attainment of maximum traffic safety requires vigorous Federal, State, and local action and a national agency will assist in obtaining such action; and (5) that a national program must be enacted by the Congress in order to carry out its constitutional mandate to promote the general welfare and regulate commerce.

"(b) It is, therefore, the purpose of this Act to reduce the extent of death, injury, and loss of property resulting from traffic accidents by providing the means for a concerted attack on the problem through the establishment of a National Traffic Safety Agency headed by a highly qualified Administrator; the establishment of a National Traffic Safety Center which shall bring together public and private information and research; and through a national program for traffic safety which shall seek to achieve a uniform national traffic safety environment by means of the vigorous application of knowledge as to the principal causes of traffic accidents, deaths, and injuries.

#### "DEFINITIONS

"SEC. 3. As used in this Act—

"(a) the term 'motor vehicle' means any vehicle, self-propelled or drawn by mechanical power, designed for use on the highways except any vehicle designed or used for military field training, combat, or tactical purposes;

"(b) the term 'Secretary' means Secretary of Commerce; and

"(c) the term 'State' means a State, the District of Columbia, Puerto Rico, the Virgin Islands, and the Canal Zone.

#### "ESTABLISHMENT OF THE NATIONAL TRAFFIC SAFETY AGENCY AND THE OFFICE OF NATIONAL TRAFFIC SAFETY ADMINISTRATOR

"SEC. 4. (a) The Secretary shall carry out the provisions of this Act through a National Traffic Safety Agency (hereinafter referred to as the 'Agency'), which he shall establish in the Department of Commerce. The Agency shall be headed by an Administrator who shall be appointed by the President, by and with the advice and consent of the Senate, and shall be compensated at the rate prescribed for level III of the Federal Executive Salary Schedule established by the Federal Executive Salary Act of 1964. The Administrator shall be a citizen of the United States, and shall be appointed with due regard for his fitness to discharge efficiently the powers and the duties delegated to him pursuant to this Act. The Administrator shall have no pecuniary interest in or own any stock in or bonds of any enterprise involved in (1) manufacturing motor vehicles or motor vehicle equipment, or (2) constructing highways, nor shall he engage in any other business, vocation, or employment. The Administrator shall perform such duties as are delegated to him by the Secretary.



## "ESTABLISHMENT OF NATIONAL TRAFFIC SAFETY CENTER

"(b) The Secretary shall establish, within the Agency, a National Traffic Safety Center (hereinafter referred to as the 'Center'). The Center shall consist of such library, laboratory, research and testing facilities as may be necessary to examine every facet of the traffic accident phenomena in order to find the principal causes of traffic accidents and injury and to identify the most effective and practical means for their prevention.

## "ESTABLISHMENT OF NATIONAL TRAFFIC SAFETY PROGRAM—DUTIES OF THE SECRETARY OF COMMERCE

"SEC. 5. In order to carry out the purposes of this Act, the Secretary is authorized to—

"(1) conduct research and engineering studies, including, among others, studies of pertinent laws and regulations, motor vehicle safety design, driver training, accident reporting, highway construction, and highway signs, signals, and controls designed to improve traffic safety and establish national traffic safety standards;

"(2) collect, interpret, and publish data, statistics, and other information relating to traffic safety, establish and maintain library reference and public information services, and publish, on a regular basis, periodic consumer traffic safety bulletins for motorists;

"(3) promote and encourage the enactment of uniform State traffic and driver licensing laws and the uniform enforcement of such laws and encourage the several States to enter into interstate compacts promoting highway traffic safety as authorized by the joint resolution of the Congress approved August 20, 1958, as amended;

"(4) develop and establish national traffic safety standards pertaining to the various elements in the total traffic environment and certify compliance with such standards pursuant to the provisions of this Act;

"(5) employ experts and consultants, or organizations thereof to assist him in carrying out his functions under this Act, as authorized by section 15 of the Administrative Expenses Act of 1946 (5 U.S.C. 55a), compensate individuals so employed at rates not in excess of \$100 per diem, including travel time, and allow them, while away from their homes or regular places of business, travel expenses (including per diem in lieu of subsistence) as authorized by section 5 of such Act (5 U.S.C. 73b-2) for persons in the Government service employed intermittently, while so employed;

"(6) negotiate contracts with, or make grants to, educational institutions, scientific organizations, and industrial and engineering firms;

"(7) to the maximum extent practicable act in concert with the several States, local governments, and nonpublic institutions and organizations;

"(8) issue necessary regulations and reports authorized by this Act; and

"(9) take such other actions as he determines will promote traffic safety in the United States.

## "NATIONAL TRAFFIC SAFETY STANDARDS

"SEC. 6. (a) The Secretary shall establish, and publish in the Federal Register, not later than six months after the effective date of this Act, regulations prescribing national traffic safety standards.

"(b) The standards shall be effective on the date specified in the regulations.

## "CERTIFICATION BY MOTOR VEHICLE MANUFACTURERS

"SEC. 7. (a) Any manufacturer of motor vehicles may certify for labeling or advertising purposes that new motor vehicles of such manufacturer meet United States traffic safety performance standards for new motor vehicles if such manufacturer submits proof adequate in the judgment of the Secretary that the new motor vehicles of such manufacturer comply with the relevant national traffic safety performance standards prescribed pursuant to this Act.

"(b) The Secretary shall by regulation prescribe the time and manner of submitting proof required for certification under this section.

"(c) The Secretary may prescribe an appropriate mark or symbol for use by such manufacturers who comply with the national traffic safety standards prescribed pursuant to this Act.

"GRANTS TO THE STATES FOR A UNIFORM TRAFFIC SAFETY PROGRAM

"SEC. 8. (a) The Secretary is authorized in accordance with the provisions of this section to make grants to the State to pay up to 30 per centum of the cost of the establishment or expansion of State programs for improving highway traffic safety.

"(b) (1) From sums appropriated pursuant to section 12 of this Act for such fiscal year, but not to exceed \$ of such appropriation, the Secretary shall allot \$ each to Puerto Rico, the Virgin Islands, and the Canal Zone and he shall allot to each State an amount which bears the same ratio to the remainder of such sums as the amount of gasoline sold in the State in the preceding calendar year bears to the amount of gasoline sold in such year in all States.

"(2) The amount of any State's allotment under this subsection for any fiscal year which the Secretary determines will not be required for such fiscal year for carrying out the State plan (if any) approved under this section shall be available for reallocation from time to time, on such dates during such year as the Secretary may fix, to other States in proportion to the original allotments to such States under this subsection for such year, but with such proportionate amount for any of such States being reduced to the extent it exceeds the sum the Secretary estimates such State needs and will be able to use for such year for carrying out the State plan; and the total of such reductions shall be similarly reallocated among the States whose proportionate amounts were not so reduced.

"(c) A State's allotment may be used in accordance with its State plan approved under this section for new or expanded traffic safety programs.

"(d) Any State desiring to receive its allotment of Federal funds under this section shall designate or create an agency which is specially qualified to administer such a traffic safety program, and shall through such agency, submit a plan which shall—

"(1) set forth a comprehensive and detailed State plan for a new or expanded traffic safety program which may include programs for the improvement of driver education and licensing, motor vehicle inspection, accident reporting, highway design and construction, and highway signs, signals, and controls;

"(2) agree to accept and apply the national traffic safety standards promulgated by the Secretary pursuant to this Act;

"(3) contain assurances that the State will pay from non-Federal sources the remaining cost of such program;

"(4) contain satisfactory evidence that the agency designated for the purpose of this section will have authority sufficient to carry out such program in conformity with this section;

"(5) provide such fiscal control and fund accounting procedures as the Secretary deems necessary to assure proper disbursement and accounting of Federal funds received under this section;

"(6) provide for making such reports in such form and containing such information as the Secretary may reasonably require to carry out his functions under this title, and for keeping such records and for affording such access thereto as the Secretary may find necessary to assure the correctness and verification of such reports; and

"(7) set forth such further information as the Secretary may by regulation require.

"(d) The Secretary shall approve any State plan, or any modification thereof, which complies with the provisions of the preceding subsection.

"REGISTER OF REVOKED LICENSES

"SEC. 9. (a) The Secretary shall establish and maintain a register containing the name of each individual reported to him by a State, or political subdivision thereof, as an individual with respect to whom such State or political subdivision has terminated or temporarily withdrawn an individual's license or privilege to operate a motor vehicle because of (1) driving while under the influence of intoxic-



ating liquor, or (2) conviction of a violation of a statute of a State, or ordinance of any political subdivision thereof, which resulted in the death of any person. Such register shall contain such other information as the Secretary may deem appropriate to carry out the purposes of this section.

"(b) The Secretary shall, at the request of any State, or political subdivision thereof, furnish such information as may be contained in the register established under this section with respect to any individual applicant for a motor vehicle operator's license or permit in such State or political subdivision.

#### "TRANSFER OF MOTOR VEHICLE SAFETY FUNCTIONS FROM THE GENERAL SERVICES ADMINISTRATION

"SEC. 10. (a) The functions of the Administrator of General Services under the Act entitled 'An Act to require passenger-carrying motor vehicles purchased for use by the Federal Government to meet certain passenger safety standards', approved August 30, 1964, are transferred to the Secretary of Commerce.

"(b) All personnel, property, records, obligations, commitments, and unexpended balances of appropriations, allocations, and other funds, which the Director of the Bureau of the Budget determines are used primarily with respect to any function transferred under the provisions of this section, are transferred to the Department of Commerce.

"(c) All laws relating to any agency or function transferred under this section shall, insofar as such laws are applicable, remain in full force and effect. Any transfer of personnel pursuant to this section shall be without change in classification or compensation, except that this requirement shall not operate to prevent the adjustment of classification or compensation to conform to the duties to which such transferred personnel may be assigned. All orders, rules, regulations, permits, or other privileges made, issued, or granted by any office or agency in connection with any function transferred by this section, and in effect at the time of the transfer, shall continue in effect to the same extent as if such transfer had not occurred, until modified, superseded, or repealed. No suit, action, or other proceeding lawfully commenced by or against any agency or officer of the United States acting in his official capacity shall abate by reason of any transfer made pursuant to this section, but the court, on motion or supplemental petition filed at any time within twelve months after such transfer takes effect, showing a necessity for a survival of such suit, action, or other proceeding to obtain a settlement of the questions involved, may allow the same to be maintained by or against the appropriate agency or officer of the United States.

"(d) The provisions of this section shall be effective after ninety days following the date of its enactment.

#### "REPORTS AND RECOMMENDATIONS

"SEC. 11. (a) The Secretary shall prepare and submit to the President for transmittal to the Congress at least once in each fiscal year a comprehensive report on the administration of this Act.

"(b) In the annual report to be submitted by June 30, 1967, the Secretary shall make such recommendations for additional legislation as he deems necessary to promote cooperation among the several States in the improvement of traffic safety and to strengthen the national traffic safety program.

#### "PAYMENTS

"SEC. 12. Payments of grants under this Act may be made (after necessary adjustment on account of previously made underpayments or overpayments) in advance or by way of reimbursement, and in such installments and on such conditions as the Secretary may determine.

#### "APPROPRIATIONS AUTHORIZED

"SEC. 13. There are hereby authorized to be appropriated \$                    for the fiscal year ending June 30, 1967, \$                    for the fiscal year ending June 30, 1968, \$                    for the fiscal year ending June 30, 1969, and for each fiscal year thereafter only such sums as the Congress may authorize by law."

## III. SAFETY DEVICES; VEHICLE PERFORMANCE STANDARDS; PROTOTYPE CARS

## A. Safety devices on motor vehicles:

1. H.R. 414—Bennett, Fla.  
H.R. 13675—Jarman, Okla.
2. H.R. 13493—Cunningham, Nebr.

## B. Vehicle Fitness Certification:

- H.R. 570—Multer, N.Y.  
H.R. 13574—Murphy, N.Y.

## C. Vehicle Safety Standards:

- |                         |                                |
|-------------------------|--------------------------------|
| H.R. 8724—Todd, Mich.   | H.R. 12392—Sickles, Md.        |
| H.R. 9153—Fulton, Pa.   | H.R. 12990—Schmidhauser, Iowa. |
| H.R. 9303—Bennett, Fla. | H.R. 13676—Jarman, Okla.       |
| H.R. 9479—Howard, N.J.  | H.R. 14406—Kastenmeier, Wisc.  |

## D. Prototype Vehicles:

- H.R. 9514—Howard, N.J.  
H.R. 12991—Schmidhauser, Iowa  
H.R. 14405—Kastenmeier, Wisc.

## E. Assistance for State vehicle design and test programs:

- H.R. 12632—Wylder, N.Y.

---

[H.R. 9514, 89th Cong., 1st sess.]

A BILL To provide for research, design, development, and construction of fully operational passenger motor vehicles in prototype quantities embodying certain safety features

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That the Administrator of General Services is hereby authorized to research, design, develop, construct, and test fully operational passenger motor vehicles in prototype quantities, embodying such safety features and technical approaches as the Administrator shall from time to time deem necessary. Such vehicles are to serve as prototypes for the development of safety designs, characteristics and features for use on commercially manufactured passenger motor vehicles. There should be incorporated into such prototype vehicles those safety designs, characteristics, and features tending to avoid or minimize the risk of accident, and/or minimize injury to passengers, pedestrians, and damage to other vehicles in the event of accidents.

SEC. 2. The Administrator of General Services may consult with any sources, groups, or individuals from which sound data, recommendations, and evaluations may be obtained. Such prototype safety vehicles program shall not be limited to traditional methods of automobile design, styling, testing, production, or sales practices and methods.

SEC. 3. In carrying out the purposes of this Act, the Administrator of General Services is authorized to acquire by purchase, license, lease for a term of years or less, or donation, secret processes, technical data, inventions, patent applications, copyright applications, patents, copyrights, irrevocable nonexclusive licenses, and other rights and licenses under patents and copyrights granted by this or any other country.

SEC. 4. To implement the provisions of this Act, the Administrator of General Services may negotiate research contracts, hire experts and consultants, and procure trade journals and technical information.

SEC. 5. Such experts and consultants as may be employed hereunder may be compensated at rates not in excess of \$75 per diem, and while away from their homes or regular places of business they may be paid actual travel expenses and per diem in lieu of subsistence at the applicable rate prescribed in the Standardized Government Travel Regulations, as amended from time to time.

SEC. 6. There is authorized to be appropriated a sum not in excess of \$5,000,000 to carry out the provisions of this Act. Any funds so appropriated shall remain available to carry out the purposes for which appropriated until expended.



[H.R. 12632, 89th Cong., 2d sess.]

A BILL To authorize financial assistance to certain State programs for the development of safer automobiles

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That (a) for the purpose of obtaining information requisite to the establishment, by Congress or the States, of higher safety standards in the design and manufacture of passenger automobiles, the Secretary of Commerce may make grants to States to assist them in carrying out programs for the design and testing of safer passenger automobiles.

(b) There is authorized to be appropriated to the Secretary of Commerce the sum of \$5,000,000. Such sum shall be available for payments to States of up to 90 per centum of the cost of carrying out State programs meeting the requirements of section 2. No part of such sum shall be available to pay the cost of manufacturing a vehicle for sale.

(c) Payments made under subsection (b) may be made in installments, in advance or by way of reimbursement, with necessary adjustments for overpayments and underpayments.

SEC. 2. A program shall be eligible for assistance under the first section if it has been approved by the Secretary of Commerce. The Secretary shall not approve a program unless—

(1) he finds that—

(A) it was established by a State by law,

(B) it provides for research into and design of a prototype safety vehicle, and for the construction and testing of such a vehicle,

(C) it will result in economically feasible improvements in design or technology which will permit the manufacture of significantly safer passenger automobiles, and

(D) it provides for publication of the results of the program, and

(2) the State department or agency administering the program agrees to adopt such fiscal control, accounting, and reporting procedures as may be prescribed by the Secretary.

[H.R. 13493, 89th Cong., 2d sess.]

A BILL To require that motor buses be equipped with seat belts

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That the manufacture for sale, the sale, or the offering for sale, in interstate commerce, or the importation into the United States, or the introduction, delivery for introduction, transportation or causing to be transported in, interstate commerce, or for the purpose of sale, or delivery after sale, in interstate commerce, of any motor bus manufactured on or after the effective date of this Act shall be unlawful unless each passenger seat location on such motor bus is equipped with a seat belt.

(b) Whoever knowingly and willfully violates this section shall be fined not more than \$1,000, or imprisoned not more than one year, or both.

SEC. 2. As used in this Act—

(1) The term "interstate commerce" includes commerce between one State, possession, the District of Columbia, or the Commonwealth of Puerto Rico and another State, possession, the District of Columbia, or the Commonwealth of Puerto Rico.

(2) The term "motor bus" means any vehicle or machine propelled or drawn by mechanical power and designed to be used on the highways for the transportation of ten or more passengers.

(3) The term "seat belt" means any seat belt meeting standards prescribed by the Secretary of Commerce pursuant to Public Law 88-201 (15 U.S.C., ch. 35).

SEC. 3. This Act shall take effect one year after the date of its enactment.

[H.R. 13574, 89th Cong., 2d sess.]

A BILL To require certificates of fitness in the sale of automobiles, and for other purposes

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That title 15, United States Code, is amended by adding the following:

"It shall be unlawful for anyone to sell, ship, transport, drive, push, tow, or propel any motor vehicle in commerce unless accompanied by a manufacturer's certificate of fitness which must state (i) that the motor vehicle and all the parts and accessories thereon have been inspected and found in good working order, safe and ready for operation on the public highways, and in complete accord with all specifications as set forth in all descriptive and advertising matter, and (ii) that the vehicle has been road tested and found in good operating condition after having been so road tested.

"Any person willfully violating the provisions of this Act shall, for each such offense, upon conviction thereof, be fined not more than \$10,000, or imprisoned for not more than one year, or both."

SEC. 2. This Act shall take effect ninety days after its enactment.

[H.R. 13675, 89th Cong., 2d sess.]

A BILL To require certain safety devices on motor vehicles sold, shipped, or used in interstate commerce, and for other purposes

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That (a) the Secretary of Commerce shall prescribe and publish in the Federal Register standards for devices for use on motor vehicles, designed to provide the public with the safest possible automobiles without unreasonably increasing automobile costs, such devices to include but not be limited to the following :

- (1) Seat belts or other stabilizing devices.
- (2) Energy-absorbing interiors.
- (3) Steering and other vehicle controls.
- (4) Bumpers, fenders, and other shock-absorbing equipment.
- (5) Headlights and other lights.
- (6) Brakes.
- (7) Aids to visibility and communication between vehicle drivers, including rear vision mirrors.
- (8) Tires.
- (9) Seats and cushions which will not become displaced on impact.
- (10) Doors which will not come open on impact.

(b) Standards first established under subsection (a) of this section shall be so prescribed and published not later than one year after the date of enactment of this Act.

SEC. 2. (a) The manufacture for sale, the sale, or the offering for sale, in interstate commerce, or the importation into the United States, or the introduction, delivery for introduction, transportation or causing to be transported in, interstate commerce or for the purpose of sale, or delivery after sale in interstate commerce, or the use in interstate commerce, of any motor vehicle manufactured on or after the date this section takes effect, shall be unlawful unless such motor vehicle is equipped with the devices enumerated in the first section of this Act which conform to the standards prescribed for such devices pursuant to such first section.

(b) The manufacture for sale, the sale, or the offering for sale, in interstate commerce, or the importation into the United States, or in the introduction, delivery for introduction, transportation or causing to be transported in, interstate commerce or for the purpose of sale, or delivery after sale in interstate commerce, or the use in interstate commerce of any of the devices enumerated in the first section of this Act as a replacement part on a motor vehicle manufactured on or after the date this section takes effect, shall be unlawful unless such device conforms to the standards prescribed pursuant to the first section of this Act.

(c) Whoever violates this section shall be fined not more than \$1,000, or imprisoned not more than one year, or both.

SEC. 3. As used in this Act—

(1) The term "interstate commerce" includes commerce between one State, territory, possession, the District of Columbia, or the Commonwealth of Puerto Rico and another State, territory, possession, the District of Columbia, or the Commonwealth of Puerto Rico.



(2) The term "motor vehicle" means any vehicle or machine propelled or drawn by mechanical power and used on the highways principally in the transportation of passengers.

SEC. 4. This Act shall not apply—

(1) to any motor vehicle manufactured in the United States for export and sold in a foreign country; and

(2) to any motor vehicle manufactured for, and sold to, a law enforcement agency, fire department, or an organization providing ambulance service, for use by such agency, department, or organization in the performance of its functions, except that such agency, department, or organization shall not sell or otherwise dispose of such motor vehicle to any other person unless such motor vehicle complies with all of the provisions of this Act.

SEC. 5. This Act shall take effect on the date of its enactment except that section 2 shall take effect on such date as the Secretary of Commerce shall determine but such date shall be not less than one year nor more than three years after the date of publication of standards first established under the first section of this Act. If such standards first established are thereafter changed, such standards as so changed shall take effect on such date as the Secretary of Commerce shall determine but such date shall be not less than one year nor more than three years after the date of their publication in accordance with the provisions of the first section of this Act.

---

[H.R. 13676, 89th Cong., 2d sess.]

A BILL To prescribe certain safety features for all motor vehicles manufactured for, sold, or shipped in interstate commerce

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That the manufacture for sale, the sale, or the offering for sale in interstate commerce, or the importation into the United States, or the introduction, delivery for introduction, transportation or causing to be transported in, interstate commerce or for the purpose of sale, or delivery after sale in interstate commerce, or the use in interstate commerce, of any motor vehicle manufactured after the date of this Act, shall be unlawful unless such motor vehicle is equipped with passenger safety devices prescribed in accordance with the provisions of this Act.

SEC. 2. The Secretary of Commerce shall prescribe and publish in the Federal Register standards for passenger safety devices required under authority of the first section of this Act, which standards shall to the extent deemed desirable be consistent with standards prescribed by the Administrator of General Services pursuant to the provisions of Public Law 88-515. The standards first established under this section shall be prescribed and published not later than one year from the date of enactment of this Act.

SEC. 3. The Secretary of Commerce shall cooperate with other Federal departments and agencies and with other public and private agencies, institutions, organizations, and companies, and with any industries involved, in the establishment of safety standards under this Act. Where other Federal instrumentalities have prescribed standards in the field of automotive safety, standards issued hereunder shall be fully coordinated with those of such instrumentalities.

SEC. 4. Any person violating the provisions of section 1 of this Act shall be fined not more than \$1,000. Such violation with respect to each motor vehicle shall constitute a separate offense.

SEC. 5. As used in this Act the term "motor vehicle" means any vehicle, self-propelled or drawn by mechanical power, designed for use on the highways principally for the transportation of passengers, and light trucks up to a gross vehicle weight of ten thousand pounds, but will not include any vehicle designed or used for military field training, combat, or tactical purposes, and motor vehicles subject to standards prescribed by the Interstate Commerce Commission.

SEC. 6. This Act shall take effect on the date of its enactment except that section 1 of this Act shall take effect one year and ninety days after the publication of standards for passenger safety first established under section 2 of this Act. If additional standards are established, or if the standards first established hereunder are later changed, such standards, as so later established or changed, shall take effect one year and ninety days after the date of their publication.

## IV. SAFETY STANDARDS FOR VEHICLE TIRES

H.R. 688—Sullivan, Mo.  
 H.R. 7784—Friedel, Md.  
 H.R. 7494—Helstoski, N.J.  
 H.R. 9478—Howard, N.J.  
 H.R. 11891—Horton, N.Y.  
 H.R. 12989—Schmidhauser, Iowa

H.R. 13344—Brown, Calif.  
 H.R. 13666—Staggers, W. Va.  
 H.R. 14190—Halpern, N.Y.  
 H.R. 14196—Kastenmeier, Wis.  
 S. 2669

---

[H.R. 7494, 89th Cong., 1st sess.]

A BILL To provide that tires sold or shipped in interstate commerce for use on motor vehicles shall comply with certain safety and labeling regulations

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That the Secretary of Commerce shall prescribe and publish in the Federal Register regulations prescribing minimum safety and performance standards and a grading and labeling system for motor vehicle tires. Such regulations shall be designed to provide the public with safe tires so that motor vehicle accidents caused by tire failure can be kept to a minimum. Regulations first established under this section shall be prescribed and published not later than one year after the date of enactment of this Act.

SEC. 2. (a) The manufacture for sale, the sale, or the offering for sale, in interstate commerce, or the importation into the United States, or the introduction, delivery for introduction, transportation, or causing to be transported, in interstate commerce, or for the purpose of sale, or delivery after sale, in interstate commerce, of any tire manufactured on or after the date this section takes effect shall be unlawful unless in compliance with the regulations prescribed by the Secretary of Commerce pursuant to the first section of this Act.

(b) Whoever knowingly and willfully violates this section shall be fined not more than \$1,000, or imprisoned not more than one year, or both.

SEC. 3. As used in this Act—

(1) The term "interstate commerce" includes commerce between one State, territory, possession, the District of Columbia, or the Commonwealth of Puerto Rico and another State, territory, possession, the District of Columbia, or the Commonwealth of Puerto Rico.

(2) The term "motor vehicle" includes any vehicle or machine propelled or drawn by mechanical power and used on the highways.

SEC. 4. This Act shall take effect on the date of its enactment except that section 2 shall take effect on such date as the Secretary of Commerce shall determine, but such date shall be not less than one hundred and eighty days nor more than one year after the date of publication of regulations first prescribed pursuant to the first section of this Act. If such regulations first prescribed are thereafter changed, such regulations as so changed shall take effect on such date as the Secretary of Commerce shall determine, but such date shall be not less than one hundred and eighty days nor more than one year after the date of their publication in accordance with the provisions of the first section of this Act.

---

[H.R. 11891, 89th Cong., 2d sess.]

A BILL To establish safety standards for motor vehicle tires sold or shipped in interstate commerce, and for other purposes

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That this Act may be cited as the "Tire Safety Act of 1966".

## DEFINITIONS

SEC. 2. As used in this Act—

(a) The term "interstate commerce" includes commerce between one State, territory, possession, the District of Columbia, or the Commonwealth of Puerto Rico and another State, territory, possession, the District of Columbia, or the Commonwealth of Puerto Rico.



(b) The term "motor vehicle" means passenger cars and station wagons used on the highways except those regulated under clauses (1), (2), and (3) of section 204(a) of the Interstate Commerce Act (49 U.S.C. 304(a)(1)-(3)).

(c) The term "Secretary" means the Secretary of Commerce.

#### MINIMUM SAFETY STANDARDS FOR TIRES

SEC. 3. In order that motor vehicle accidents caused by tire failure can be kept to a minimum, the Secretary shall establish and publish, as interim minimum safety standards, in the Federal Register the tire safety standards substantially as prescribed in regulation V-1 by the Vehicle Equipment Safety Commission, an interstate agency established pursuant to the joint resolution of the Congress relating to highway traffic safety approved August 20, 1958, as the initial minimum safety standards for motor vehicle tires.

#### IMPROVING STANDARDS

SEC. 4. (a) Two years after the effective date of this Act and thereafter as he deems necessary the Secretary shall review and revise to the extent necessary the minimum safety standards prescribed pursuant to section 3. Such revised standards shall be published in the Federal Register and shall become effective on the date specified in the regulations.

(b) In such revised minimum standards the Secretary shall prescribe the maximum permissible loads for each motor vehicle tire, and the application of such maximum permissible load standards.

(c) In order to carry out this section, the Secretary—

(1) is authorized to conduct a research and development program to improve minimum new tire safety standards;

(2) is authorized to conduct a research and development program to develop minimum safety standards for retreaded motor vehicle tires;

(3) shall consult with tire manufacturers, and other interested industries, technical organizations, State, local and interstate agencies concerned with tire safety, and tire users; and

(4) shall take into consideration such factors as size, load-carrying ability and its relation to the type of expected use, skid resistance, blowout resistance, resistance to curb striking and pothole or bump damage, cornering ability, rim resistance and such other factors as he deems relevant.

#### DEVELOPMENT OF PERFORMANCE STANDARDS FOR GRADING TIRES

SEC. 5. In order that the consumer may make an informed choice in the purchase of motor vehicle tires, the Secretary is authorized and directed to develop a uniform grading system for motor vehicle tires. The Secretary shall make recommendations to the Congress with respect to the implementation of such a uniform grading system by January 31, 1971.

#### PROHIBITED ACTS

SEC. 6. The following acts and the causing thereof are prohibited:

(a) the manufacture for sale, the sale, or the offering for sale, in interstate commerce, or the importation into the United States, or the introduction, delivery for introduction, or transportation, in interstate commerce, or for the purpose of sale, or delivery after sale, in interstate commerce, of any motor vehicle tire manufactured on or after the date this section takes effect unless in compliance with the standards prescribed by the Secretary pursuant to sections 3 and 4 of his Act;

(b) the sale, or the offering for sale, in interstate commerce, or the importation into the United States, or the introduction, delivery for introduction, or transportation, in interstate commerce, or for the purpose of sale, or delivery after sale, in interstate commerce, of any new motor vehicle equipped with tires not in compliance with the standards established by the Secretary pursuant to section 4(b) of this Act;

(c) the failure to permit entry or inspection as authorized by section 10 of this Act.

## SEIZURE

SEC. 7. (a) Any motor vehicle tire that has been manufactured or introduced into commerce in violation of section 6(a) of this Act shall be liable to be proceeded against while in interstate commerce or at any time thereafter, on libel of information and condemned in any district court in the United States within the jurisdiction of which the tire is found: *Provided*, That this section shall not apply to a tire intended for export to any foreign country if it is labeled on the outside of the shipping package to show that it is intended for export, and is so exported.

(b) Such tire shall be liable to seizure by process pursuant to the libel, and the procedure in cases under this section shall conform, as nearly as may be, to the procedure in admiralty; except that on demand of either party any issue of fact joined in any such case shall be tried by jury. When libel for condemnation proceedings under this section, involving the same claimant, are pending in two or more jurisdictions, such pending proceedings, upon application of the United States or the claimant seasonably made to the court of one such jurisdiction, shall be consolidated for trial by order of such court, and tried in (1) any district selected by the applicant where one of such proceedings is pending; or (2) a district agreed upon by stipulation between the parties. If no order for consolidation is so made within a reasonable time, the United States or the claimant may apply to the court of one such jurisdiction, and such court (after giving the other party, the claimant, or the United States attorney for such district, reasonable notice and opportunity to be heard) shall by order, unless good cause to the contrary is shown, specify a district of reasonable proximity to the claimant's principal place of business, in which all such pending proceedings shall be consolidated for trial and tried. Such order of consolidation shall not apply so as to require the removal of any case the date for trial of which has been fixed. The court granting such order shall give prompt notification thereof to the other courts having jurisdiction of the case covered thereby.

(c) Any tire condemned under this section shall, after entry of the decree, be disposed of by destruction or sale as the court may, in accordance with the provisions of this section, direct and the proceeds thereof, if sold, less the legal costs and charges, shall be paid into the Treasury of the United States; but such tire shall not be sold under such decree contrary to the provisions of this Act or the laws of the jurisdiction in which sold: *Provided*, That, after entry of the decree and upon the payment of the costs of such proceedings and the execution of a good and sufficient bond conditioned that such tire shall not be sold or disposed of contrary to the provisions of this Act or the laws of any State or territory in which sold, the court may by order direct that such tire be delivered to the owner thereof to be destroyed or brought into compliance with the provisions of this Act under the supervision of an officer or employee duly designated by the Secretary, and the expenses of such supervision shall be paid by the person obtaining release of the tire under bond.

(d) When a decree of condemnation is entered against the tire, court costs and fees, and storage and other proper expenses, shall be awarded against the person, if any, intervening as claimant of the tire.

(e) In the case of removal for trial of any case as provided by subsection (b) of this section—

(1) the clerk of the court from which removal is made shall promptly transmit to the court in which the case is to be tried all records in the case necessary in order that such court may exercise jurisdiction;

(2) the court to which such case is removed shall have the powers and be subject to the duties, for purposes of such case, which the court from which removal was made would have had, or to which such court would have been subject, if such case had not been removed.

## INJUNCTION; CRIMINAL CONTEMPT

SEC. 8. (a) The United States district courts and the United States courts of the territories shall have jurisdiction, for cause shown and subject to the provisions of rule 65 (a) and (b) of the Federal Rules of Civil Procedure, to restrain violations of this Act.

(b) In any proceeding for criminal contempt for violation of an injunction or restraining order issued under this section, which violation also constitutes



a violation of this Act, trial shall be by the court or, upon demand of the accused, by a jury. Such trial shall be conducted in accordance with the practice and procedure applicable in the case of proceedings subject to the provisions of rule 42(b) of the Federal Rules of Criminal Procedure.

#### SUBPENAS

SEC. 9. In all libel or injunction proceedings for the enforcement, or to restrain violations, of this Act subpoenas for witnesses who are required to attend a court of the United States in any district may run into any other district in any such proceeding.

#### TESTING AND INSPECTION

SEC. 10. (a) The Secretary is authorized to conduct such testing and inspection as he deems necessary for the enforcement of this Act.

(b) For purposes of this section, officers and employees designated by the Secretary, upon presenting appropriate credentials and a written notice to the owner, operator, or agent in charge, are authorized to enter, at reasonable times, any factory, warehouse, or other business establishment or premises where motor vehicle tires are manufactured or held prior to their sale or delivery to the ultimate consumer, or are being worked on after such sale or delivery, or where new motor vehicles are assembled or held prior to their sale or delivery to the ultimate consumer and to make a reasonable inspection of such tires or such motor vehicles to determine compliance with the provisions of this Act and regulations prescribed pursuant to this Act.

#### RECORDS AND REPORTS

SEC. 11. (a) Every tire manufacturer shall establish and maintain such records, make such reports, and provide such information as the Secretary may reasonably require to enable him to determine whether such manufacturer has acted or is acting in compliance with the provisions of this Act and regulations prescribed pursuant to this Act.

(b) All information reported shall be considered confidential for the purpose of section 1905 of title 18 of the United States Code, except where such information is related to other officers or employees concerned with carrying out this Act or when relevant in any proceeding under this Act.

#### AUTHORIZATION

SEC. 12. (a) There is authorized to be appropriated the sum of \$5,820,000 for the period ending June 30, 1971, to carry out the purposes of this Act and a sum not to exceed \$750,000 for each fiscal year thereafter.

#### EFFECTIVE DATE

SEC. 13. This Act shall take effect on the date of its enactment except that section 6 shall take effect on such date as the Secretary of Commerce shall determine, but such date shall be not less than thirty days nor more than ninety days after the date of publication of regulations first prescribed pursuant to section 3 of this Act.

[H.R. 12989, 89th Cong., 2d sess.]

A BILL To provide that tires sold or shipped in interstate commerce for use on motor vehicles shall comply with certain safety and labeling regulations

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That the Secretary of Commerce shall prescribe and publish in the Federal Register regulations prescribing minimum safety and performance standards and a grading and labeling system for motor vehicle tires. Such regulations shall be designed to provide the public with safe tires so that motor vehicle accidents caused by tire failure can be kept to a minimum. Regulations first established under this section shall be prescribed and published not later than one year after the date of enactment of this Act.

SEC. 2. (a) The manufacture for sale, the sale, or the offering for sale, in interstate commerce, or the importation into the United States, or the introduc-

tion, delivery for introduction, transportation, or causing to be transported, in interstate commerce, or for the purpose of sale, or delivery after sale, in interstate commerce, of any tire manufactured on or after the date this section takes effect shall be unlawful unless in compliance with the regulations prescribed by the Secretary of Commerce pursuant to the first section of this Act.

(b) Whoever knowingly and willfully violates this section shall be fined not more than \$1,000, or imprisoned not more than one year, or both.

SEC. 3. As used in this Act—

(1) The term "interstate commerce" includes commerce between one State, territory, possession, the District of Columbia, or the Commonwealth of Puerto Rico and another State, territory, possession, the District of Columbia, or the Commonwealth of Puerto Rico.

(2) The term "motor vehicle" includes any vehicle or machine propelled or drawn by mechanical power and used on the highways.

SEC. 4. This Act shall take effect on the date of its enactment except that section 2 shall take effect on such date as the Secretary of Commerce shall determine, but such date shall be not less than one hundred and eighty days nor more than one year after the date of publication of regulations first prescribed pursuant to the first section of this Act. If such regulations first prescribed are thereafter changed, such regulations as so changed shall take effect on such date as the Secretary of Commerce shall determine, but such date shall be not less than one hundred and eighty days nor more than one year after the date of their publication in accordance with the provisions of the first section of this Act.

[H.R. 13666, 89th Cong., 2d sess.]

A BILL To establish safety standards for motor vehicle tires sold or shipped in interstate commerce, and for other purposes

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That this Act may be cited as the "Tire Safety Act of 1966".

#### PURPOSE

SEC. 2. It is the purpose of this Act to protect the public against unreasonable risk of highway accidents occurring as the result of tire failure, through the establishment and the enforcement of minimum safe performance standards for tires. It is also the purpose of this Act to authorize a study of the feasibility of a quality grading system for tires which will reduce confusion in the marketing of tires.

SEC. 3. As used in this Act—

(a) The term "interstate commerce" means commerce between any place in a State, territory, possession, the District of Columbia, or the Commonwealth of Puerto Rico and any place in another State, territory, possession, the District of Columbia, or the Commonwealth of Puerto Rico, or between places in the same State or the District of Columbia through another State or the District of Columbia.

(b) The term "Secretary" means the Secretary of Commerce.

(c) The term "motor vehicle" means passengers cars and station wagons, but does not include any motor vehicle classified as a special purpose vehicle, such as an antique or racing car, in accordance with regulations promulgated by the Secretary.

(d) The term "tire" means a pneumatic tire for use on motor vehicles.

(e) The term "retreaded tire" means a used tire on which the worn tread rubber has been replaced with new tread rubber.

(f) The term " regrooved tire" means a tire on which an iron or a tread design device has been used to cut into a smooth tire carcass to produce a new tread design.

#### INTERIM MINIMUM SAFE PERFORMANCE STANDARDS FOR NEW TIRES

SEC. 4. (a) In order to carry out the purposes of this Act, on or before January 31, 1967, the Secretary shall adopt and publish in the Federal Register interim minimum safe performance standards for new tires, which shall be based upon existing public and private standards.



(b) The interim minimum safe performance standards adopted pursuant to subsection (a) of this section shall become effective one hundred and eighty days from the date on which the standards are published.

#### REVISED MINIMUM SAFE PERFORMANCE STANDARDS FOR TIRES

SEC. 5. (a) On or before January 31, 1969, and thereafter as he deems necessary to accomplish the purposes of this Act, the Secretary shall, by order, establish and issue in accordance with the Administrative Procedure Act (5 U.S.C. 1001 et seq.) (1) minimum safe performance standards for new tires, and (2) minimum safe performance standards for newly retreaded tires, which may be in the form of minimum safe procedures for retreading tires. Regulations established and issued pursuant to this subsection shall be made on the record after opportunity for an agency hearing.

(b) In such standards, the Secretary shall prescribe such maximum permissible loads for each size of tire, and the application of such maximum permissible load standards, as he determines necessary to achieve the purposes of this Act.

(c) In prescribing standards pursuant to clause (2) of the preceding subsection the Secretary shall not require retreaders to use tire casings produced under the minimum safe performance standards for new tires, until such time as the Secretary finds that such casings are generally available for retreading.

(d) Standards issued pursuant to this section shall become effective on a date specified by the Secretary which shall be no later than one year nor sooner than one hundred and eighty days from the date on which the standards are published, except that standards for newly retreaded tires shall not take effect before June 30, 1969.

(e) In order to carry out this section, the Secretary—

(1) shall consult with tire and motor vehicle manufacturers and tire retreaders; with the Vehicle Equipment Safety Commission; scientific, technical, business, and trade organizations; State, local, and interstate agencies, and tire users as appropriate; and

(2) shall take into consideration such factors as size, load-carrying ability under the conditions likely to be encountered in regular highway travel, resistance to impact and fatigue, resistance to cornering and skidding, resistance to detachment from rim, and such other factors as he deems relevant.

#### AMENDMENT OF STANDARDS

SEC. 6. The Secretary, from time to time, subject to the administrative procedural requirements set forth in subsection 5(a), may, by order, amend the minimum safe performance standards issued under this Act. Amendments shall become effective on the date specified therefor by the Secretary in said order which shall be no later than one year from the date on which the amendment is issued, nor sooner than one hundred and eighty days, unless the Secretary finds, publishing his reasons therefor, that an earlier or later date is in the public interest.

#### PREEMPTION

SEC. 7. No State or political subdivision thereof shall establish minimum safe performance standards for new or newly retreaded tires which differ from minimum safe performance standards promulgated pursuant to the provisions of this Act, and any law, regulation, or ordinance purporting to establish such different standards and providing punishment for an act of noncompliance therewith shall be null and void. Nothing in this subsection shall be construed to prevent the Federal Government, a State, or political subdivision thereof, from establishing standards for the exclusive purpose of its own procurement of new or newly retreaded tires.

#### LABELING

SEC. 8. In all standards published pursuant to this Act, the Secretary shall require that tires subject thereto be permanently and conspicuously labeled with such safety information as he determines to be necessary to achieve the purposes of this Act. Such labeling shall include suitable identification of the manufacturer (and in the case of a retreaded tire suitable identification of the retreader), and a recital that such tires conform to the Federal minimum safe performance standards. In lieu of such recital, the Secretary may prescribe an

appropriate mark or symbol for use by such manufacturers or retreaders who comply with such standards. The Secretary may require that additional safety-related information be disclosed to the purchaser at the time of sale.

#### JUDICIAL REVIEW OF ORDERS

SEC. 9. (a) (1) In a case of actual controversy as to the validity of any order under this Act, any person who will be adversely affected by such order if placed in effect may at any time prior to the forty-fifth day after such order becomes effective, including the period after issuance before the order becomes effective, file a petition with the United States court of appeals for the circuit wherein such person resides or has his principal place of business, for a judicial review of such order. A copy of the petition shall be forthwith transmitted by the clerk of the court to the Secretary or other officer designated by him for that purpose. The Secretary thereupon shall file in the court the record of the proceedings on which the Secretary based his order, as provided in section 2112 of title 28.

(2) If the petitioner applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Secretary, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Secretary, and to be adduced upon the hearing, in such manner and upon such terms and conditions as to the court may seem proper. The Secretary may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken, and he shall file such modified or new findings, and his recommendation, if any, for the modification or setting aside of his original order, with the return of such additional evidence.

(3) Upon the filing of the petition referred to in paragraph (1) of this subsection, the court shall have jurisdiction to affirm the order, or to set it aside in whole or in part, temporarily or permanently. The findings of the Secretary as to the facts, if supported by substantial evidence, shall be conclusive.

(4) The judgment of the court affirming or setting aside, in whole or in part, any such order of the Secretary shall be final, subject to review by the Supreme Court of the United States upon certiorari or certification as provided in sections 346 and 347 of title 28.

(5) Any action instituted under this subsection shall survive notwithstanding any change in the person occupying the office of Secretary or any vacancy in such office.

(6) The remedies provided for in this subsection shall be in addition to and not in substitution for any other remedies provided by law.

(b) A certified copy of the transcript of the record and proceedings under this section shall be furnished by the Secretary to any interested party at his request and payment by such party of the costs thereof, and shall be admissible in any criminal proceeding, libel for condemnation, exclusion of imports, or other proceeding arising under or in respect to this Act whether or not proceedings with respect to the order have previously been instituted or become final under subsection (a) of this section.

#### DEVELOPMENT OF STANDARDS FOR GRADING TIRES

SEC. 10. In order to assist the consumer to make an informed choice in the purchase of motor vehicle tires, the Secretary is authorized and directed to investigate the feasibility of a uniform quality grading system for motor vehicle tires. On or before January 31, 1969, the Secretary shall report to Congress and make recommendations with respect to the implementation of such uniform quality grading system as he may find to be feasible. The Secretary shall also cooperate with industry and the Federal Trade Commission to the maximum extent practicable in efforts to eliminate deceptive and confusing tire nomenclature and marketing practices.

#### RESEARCH, TESTING, AND DEVELOPMENT

SEC. 11. The Secretary, in cooperation with other departments and agencies of the Federal Government, is authorized to—

(a) conduct either directly or by way of grant, contract, or otherwise, research, testing, development, and information gathering and disseminat-



ing activities necessary to accomplish the purpose of this Act, which activities shall include consideration of—

- (1) relating tire performance characteristics to tire safety;
- (2) determining the effects of wear and use of tires upon tire safety;
- (3) evaluating and developing methods and equipment for testing, inspecting, and determining safety of tires;
- (4) evaluating and developing methods and equipment for determining adequacy of minimum safe performance standards for tires, and compliance of tires with minimum safe performance standards;
- (5) developing improved minimum safe performance standards for tires; and
- (6) determining the feasibility of a uniform quality grading system for tires;

(b) purchase, acquire, or fabricate all equipment and facilities necessary to carry out the provisions of this Act and, notwithstanding any other provision of law, tires for research or testing purposes may be purchased and tested even though such tests may damage or destroy the tires being tested;

(c) sell or otherwise dispose of tires tested pursuant to the preceding clause, notwithstanding any other provision of law, and reimburse the proceeds of such sale or disposal in the appropriation or fund current and available for the purpose of carrying out this Act: *Provided*, That tires which have been rendered irreparably unsafe for use on the highways, by testing pursuant to subsection (b), shall be sold or disposed of in a manner insuring that they shall not be used on the highways or on vehicles for use on the highways.

#### INSPECTION AND TESTING FOR COMPLIANCE: RECORDS AND REPORTS

SEC. 12. (a) The Secretary is authorized to conduct such testing and inspection as he deems necessary to aid in the enforcement of standards issued and in effect under this Act and shall furnish the Attorney General and, when appropriate, the Secretary of the Treasury any information obtained and test results indicating noncompliance with such standards, for appropriate enforcement or customs action.

(b) For purposes of this section, officers and employees designated by the Secretary, upon presenting appropriate credentials and a written notice to the owner, operator, or agent in charge, are authorized to enter, at reasonable times, any plant, facility, warehouse, or other business establishment or premises where tires or motor vehicles are held prior to their sale or delivery, or where tires are retreaded, and to make a reasonable inspection if such tires or (with respect to the tires with which they are equipped only) such motor vehicles.

(c) Every manufacturer and retreader of tires and every manufacturer of motor vehicles shall establish and maintain such records, make such reports, and provide such information as the Secretary may reasonably require to enable him to determine whether such manufacturer or retreader has acted or is acting in compliance with the provisions of this Act and standards prescribed pursuant to this Act and shall, upon request of an officer or employee duly designated by the Secretary, permit such officer or employee to inspect appropriate books, papers, records, and documents.

(d) All information reported to or otherwise obtained by the Secretary or his representative pursuant to subsection (b) or (c), which information contains or relates to a trade secret or other matter referred to in section 1905 of title 18 of the United States Code, shall be considered confidential for the purposes of that section, except that such information may be disclosed to other officers or employees concerned with carrying out this Act or when relevant in any proceeding under this Act.

#### PROHIBITED ACTS

SEC. 13. (a) No person shall—

- (1) manufacture for sale, sell, offer for sale, or introduced or deliver for introduction in interstate commerce, or import into the United States for resale, any tire manufactured or retreaded or any motor vehicle assembled on or after the date any applicable standards take effect under this Act unless it is in conformity with such standards as prescribed or amended

by the Secretary pursuant to section 4, 5, 6, or 8 of this Act, except as provided in subsection (b) of this section; or

(2) fail or refuse to permit entry or inspection as authorized under section 12(b) of this Act or fail or refuse access to or copying of records, or fail to make reports or provide information, as required under section 12(c).

(b) Paragraph (1) of subsection (a) shall not apply to the sale, the offer for sale, or the introduction or delivery for introduction in interstate commerce of any tire or motor vehicle after the first purchase of it in good faith where the tire is labeled as conforming to Federal minimum safe performance standards.

(c) (1) A tire or motor vehicle offered for importation in violation of paragraph (1) of subsection (a) shall be refused admission into the United States, but the Secretary of the Treasury and the Secretary may, by joint regulations, provide for authorizing the importation of a tire or motor vehicle, or class thereof, into the United States upon such terms and conditions (including the furnishing of a bond) as may appear to them appropriate to insure that any such tire or motor vehicle will be brought into conformity with any applicable standards prescribed under this Act, or will be exported or abandoned to the Government.

(2) The Secretary of the Treasury and the Secretary may, by joint regulations, prohibit the importation of any tire or motor vehicle, or class thereof, into the United States, unless it meets any standards or regulations issued by the Secretary pursuant to the provisions of this Act.

(3) Paragraph (1) of subsection (a) shall not apply to a tire intended solely for export, if it is labeled on the outside of the shipping container to show that it is intended for export and is so exported.

(d) No person, firm, or corporation shall sell, offer for sale, or introduce for sale or deliver for introduction in interstate commerce any tire or motor vehicle equipped with any tire which has been regrooved, except that the Secretary may by order permit the sale of regrooved tires or motor vehicle equipped with such tires which he finds are designed and constructed in a manner consistent with the purposes of this Act.

#### CIVIL PENALTY

Sec. 14. (a) Whoever violates any provision of section 13(a)(2) or 13(d), or any regulation issued thereunder, shall be subject to a civil penalty of not to exceed \$1,000 for each such violation.

(b) Any such civil penalty may be compromised by the Secretary. The amount of such penalty, when finally determined, or the amount agreed upon in compromise, may be deducted from any sums owing by the United States to the person charged.

#### INJUNCTION; SUBPENAS

Sec. 15. (a) The United States district courts and the United States courts of the territories and of the Commonwealth of Puerto Rico shall have jurisdiction, for cause shown and subject to the provisions of rule 65 (a) and (b) of the Federal Rules of Civil Procedure, to restrain violations of this Act upon petition by the appropriate United States attorney or the Attorney General on behalf of the United States.

(b) In any proceeding for criminal contempt for violation of an order, injunction, or restraining order issued under this section, which violation also constitutes a violation of this Act, trial shall be by the court or, upon demand of the accused, by a jury. Such trial shall be conducted in accordance with the practice and procedures applicable in the case of proceedings subject to the provisions of rule 42(b) of the Federal Rules of Criminal Procedure.

(c) In all libel or injunction proceedings for the enforcement, or to restrain violations, of this Act, subpoenas for witnesses who are required to attend a court of the United States in any district may run into any other district in any such proceeding.

#### SEIZURE

Sec. 16. (a) Any motor vehicle tire that has been manufactured or introduced into commerce in violation of section 13 of this Act shall be liable to be proceeded against by the United States while in interstate commerce on libel of information and condemned in any district court of the United States and in any United



States court for the territories, possessions, and the Commonwealth of Puerto Rico.

(b) Such tire shall be liable to seizure by process pursuant to the libel, and the procedure in cases under this section shall conform, as nearly as may be, to the procedure in admiralty; except that on demand of either party any issue of fact joined in any such case shall be tried by jury. When libel for condemnation proceedings under this section, involving the same claimant, are pending in two or more jurisdictions, such pending proceedings, upon application of the United States or the claimant seasonably made to the court of one such jurisdiction, shall be consolidated for trial by order of such court, and tried in (1) any district selected by the applicant where one of such proceedings is pending; or (2) a district agreed upon by stipulation between the parties. If no order for consolidation is so made within a reasonable time, the United States or the claimant may apply to the court of one such jurisdiction, and such court (after giving the other party, the claimant, or the United States attorney for such district, reasonable notice and opportunity to be heard) shall by order, unless good cause to the contrary is shown, specify a district of reasonable proximity to the claimant's principal place of business, in which all such pending proceedings shall be consolidated for trial and tried. Such order of consolidation shall not apply so as to require the removal of any case the date for trial of which has been fixed. The court granting such order shall give prompt notification thereof to the other courts having jurisdiction of the case covered thereby.

(c) Any tire condemned under this section shall, after entry of the decree, be disposed of by destruction or sale as the court may, in accordance with the provisions of this section, direct and the proceeds thereof, if sold, less the legal costs and charges, shall be paid into the Treasury of the United States, but such tire shall not be sold under such decree contrary to the provisions of this Act or the laws of the jurisdiction in which sold: *Provided, That*, after entry of the decree and upon the payment of the costs of such proceedings and the execution of a good and sufficient bond conditioned that such tire shall not be sold or disposed of contrary to the provisions of this Act or the laws of any State or territory in which sold, the court may by order direct that such tire be delivered to the owner thereof to be destroyed or brought into compliance with the provisions of this Act under the supervision of an officer or employee duly designated by the Secretary, and the expenses of such supervision shall be paid by the person obtaining release of the tire under bond.

(d) When a decree of condemnation is entered against the tire, court costs and fees, and storage and other proper expenses, shall be awarded against the person, if any, intervening as claimant of the tire.

(e) In the case of removal for trial of any case as provided by subsection (c) of this section—

(1) the clerk of the court from which removal is made shall promptly transmit to the court in which the case is to be tried all records in the case necessary in order that such court may exercise jurisdiction;

(2) the court to which such case is removed shall have the powers and be subject to the duties, for purposes of such case, which the court from which removal was made would have had, or to which such court would have been subject, if such case had not been removed.

#### REGULATIONS, AVOIDANCE OF DUPLICATION

Sec. 17. (a) The Secretary is authorized to issue and amend such rules and regulations as he deems necessary or appropriate to carrying out the provisions of this Act.

(b) The Secretary, in exercising the authority under this Act, shall utilize the services, research, and testing facilities of public and competent private agencies to the maximum extent he determines practicable in order to avoid duplication in research, facilities, or operation services.

#### AUTHORIZATION

Sec. 18. There is authorized to be appropriated such sums as may be necessary to carry out the purposes of this Act.

[S. 2669, 89th Cong., 2d sess.]

AN ACT To establish safety standards for motor vehicle tires sold or shipped in interstate commerce, and for other purposes

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Tire Safety Act of 1966".*

## PURPOSE

SEC. 2. It is the purpose of this Act to protect the public against unreasonable risk of highway accidents occurring as the result of tire failure, through the establishment and the enforcement of minimum safety performance standards for tires. It is also the purpose of this Act to authorize a study of the feasibility of a quality grading system for tires which will reduce confusion in the marketing of tires.

SEC. 3. As used in this Act—

(a) The term "interstate commerce" means commerce between any place in a State, territory, possession, the District of Columbia, or the Commonwealth of Puerto Rico, or between places in the same State or the District of Columbia through another State or the District of Columbia.

(b) The term "Secretary" means the Secretary of Commerce.

(c) The term "motor vehicle" means passenger cars and station wagons, but does not include any motor vehicle classified as a special purpose vehicle, such as an antique or racing car, in accordance with regulations promulgated by the Secretary.

(d) The term "tire" means a pneumatic tire for use on motor vehicles.

(e) The term "retreaded tire" means a used tire on which the worn tread rubber has been replaced with new tread rubber.

(f) The term " regroover tire" means a tire on which an iron or a tread design device has been used to cut into a smooth tire carcass to produce a new tread design.

## INTERIM MINIMUM SAFE PERFORMANCE STANDARDS FOR NEW TIRES

SEC. 4. (a) In order to carry out the purposes of this Act, on or before January 31, 1967, the Secretary shall adopt and publish in the Federal Register interim minimum safe performance standards for new tires, which shall be based upon existing public and private standards.

(b) The interim minimum safe performance standards adopted pursuant to subsection (a) of this section shall become effective one hundred and eighty days from the date on which the standards are published.

## REVISED MINIMUM SAFE PERFORMANCE STANDARDS FOR TIRES

SEC. 5. (a) On or before January 31, 1969, and thereafter as he deems necessary to accomplish the purposes of this Act, the Secretary shall, by order, establish and publish in the Federal Register in accordance with the Administrative Procedure Act (5 U.S.C. 1001 et. seq.) (1) revised minimum safe performance standards for new tires, and (2) minimum safe performance standards for newly retreaded tires, which may be in the form of minimum safe procedures for retreading tires. Regulations established and issued pursuant to this subsection shall be made on the record after opportunity for an agency hearing.

(b) In such standards, the Secretary shall prescribe such maximum permissible loads for each size of tire, and the application of such maximum permissible load standards, as he determines necessary to achieve the purposes of this Act.

(c) In prescribing standards pursuant to clause (2) of the preceding subsection the Secretary shall not require retreaders to use tire casings produced under the minimum safe performance standards for new tires, until such time as the Secretary finds that such casings are generally available for retreading.

(d) Standards issued pursuant to this section shall become effective on a date specified by the Secretary which shall be no later than one year nor sooner than one hundred and eighty days from the date on which the standards are published, except that standards for newly retreaded tires shall not take effect before June 30, 1969.

(e) In order to carry out sections 4 and 5 hereof, the Secretary—

(1) shall consult with tire and motor vehicle manufacturers and tire retreaders; with the Vehicle Equipment Safety Commission; scientific, tech-



nical, business, and trade organizations; State, local, and interstate agencies, and tire users; as appropriate; and

(2) shall take into consideration such factors as size, load-carrying ability under the conditions likely to be encountered in regular highway travel, resistance to impact and fatigue, resistance to cornering and skidding, resistance to detachment from rim, and such other factors as he deems relevant.

#### AMENDMENT OF STANDARDS

SEC. 6. The Secretary, from time to time, subject to the administrative procedural requirements set forth in subsection 5(a), may, by order, amend the minimum safe performance standards issued under this Act. Amendments shall become effective on the date specified therefor by the Secretary in said order which shall be no sooner than one hundred and eighty days, nor later than one year from the date on which the amendment is issued, unless the Secretary finds, publishing his reasons therefor, that an earlier or later date is in the public interest.

#### PREEMPTION

SEC. 7. No State or political subdivision thereof shall establish minimum safe performance standards for new or newly retreaded tires which differ from minimum safe performance standards promulgated pursuant to the provisions of this Act, and any law, regulation, or ordinance purporting to establish such different standards and providing punishment for an act of noncompliance therewith shall be null and void. Nothing in this subsection shall be construed to prevent the Federal Government, a State or political subdivision thereof from establishing standards for the exclusive purposes of its own procurement of new or newly retreaded tires.

#### LABELING

SEC. 8. In all standards published pursuant to this Act, the Secretary shall require that tires subject thereto be permanently and conspicuously labeled with such safety information as he determines to be necessary to achieve the purposes of this Act. Such labeling shall include suitable identification of the manufacturer (and in the case of a retreaded tire suitable identification of the retreader), and a recital that such tires conform to Federal minimum safe performance standards. In lieu of such recital, the Secretary may prescribe an appropriate mark or symbol for use by such manufacturers or retreaders who comply with such standards. The Secretary may require that additional safety-related information be disclosed to the purchaser at the time of sale.

#### JUDICIAL REVIEW OF ORDERS

SEC. 9. (a) (1) In a case of actual controversy as to the validity of any order under this Act, any person who will be adversely affected by such order if placed in effect may at any time prior to the forty-fifth day after such order becomes effective, including the period after publication in the Federal Register before the order becomes effective, file a petition with the United States court of appeals for the circuit wherein such person resides or has his principal place of business, for a judicial review of such order. A copy of the petition shall be forthwith transmitted by the clerk of the court to the Secretary or other officer designated by him for that purpose. The Secretary thereupon shall file in the court the record of the proceedings on which the Secretary based his order, as provided in section 2112 of title 28.

(2) If the petitioner applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Secretary, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Secretary, and to be adduced upon the hearing, in such manner and upon such terms and conditions as to the court may seem proper. The Secretary may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken, and he shall file such modified or new findings, and his recommendation, if any, for the modification or setting aside of his original order, with the return of such additional evidence.

(3) Upon the filing of the petition referred to in paragraph (1) of this subsection, the court shall have jurisdiction to affirm the order, or to set it aside in whole or in part, temporarily or permanently. The findings of the Secretary as to the facts, if supported by substantial evidence, shall be conclusive.

(4) The judgment of the court affirming or setting aside, in whole or in part, any such order of the Secretary shall be final, subject to review by the Supreme Court of the United States upon certiorari or certification as provided in section 1254 of title 28.

(5) Any action instituted under this subsection shall survive notwithstanding any change in the person occupying the office of Secretary or any vacancy in such office.

(6) The remedies provided for in this subsection shall be in addition to and not in substitution for any other remedies provided by law.

(b) A certified copy of the transcript of the record and proceedings under this section shall be furnished by the Secretary to any interested party at his request and payment by such party of the costs thereof, and shall be admissible in any criminal proceeding, libel for condemnation, exclusion of imports, or other proceeding arising under or in respect to this Act whether or not proceedings with respect to the order have previously been instituted or become final under subsection (a) of this section.

#### UNIFORM GRADING SYSTEM FOR MOTOR VEHICLE TIRES

SEC. 10. In order to assist the consumer to make an informed choice in the purchase of motor vehicle tires, within two years after the enactment of this Act, the Secretary shall prescribe by order, and publish in the Federal Register, a uniform quality grading system for motor vehicle tires. Such order shall become effective one hundred and eighty days from the date on which such order was published. The Secretary shall also cooperate with industry and the Federal Trade Commission to the maximum extent practicable in efforts to eliminate deceptive and confusing tire nomenclature and marketing practices.

#### RESEARCH, TESTING, AND DEVELOPMENT

SEC. 11. The Secretary, in cooperation with other departments and agencies of the Federal Government, is authorized to—

(a) conduct either directly or by way of grant, contract, or otherwise, research, testing, development, and information gathering and disseminating activities necessary to accomplish the purposes of this Act, which activities shall include consideration of—

- (1) relating tire performance characteristics to tire safety;
- (2) determining the effects of wear and use of tires upon tire safety;
- (3) evaluating and developing methods and equipment for testing, inspecting, and determining safety of tires;
- (4) evaluating and developing methods and equipment for determining adequacy of minimum safe performance standards for tires, and compliance of tires with minimum safe performance standards;
- (5) developing improved minimum safe performance standards for tires; and
- (6) determining the feasibility of a uniform quality grading system for tires;

(b) purchase, acquire, or fabricate all equipment and facilities necessary to carry out the provisions of this Act and, notwithstanding any other provision of law, tires for research or testing purposes may be purchased and tested even though such tests may damage or destroy the tires being tested;

(c) sell or otherwise dispose of tires tested pursuant to the preceding clause, notwithstanding any other provision of law, and reimburse the proceeds of such sale or disposal into the appropriation or fund current and available for the purpose of carrying out this Act: *Provided*, That tires which have been rendered irreparably unsafe for use on the highways, by testing pursuant to subsection (b), shall be sold or disposed of in a manner insuring that they shall not be used on the highways or on vehicles for use on the highways.

#### INSPECTION AND TESTING FOR COMPLIANCE; RECORDS AND REPORTS

SEC. 12. (a) The Secretary is authorized to conduct such testing and inspection as he deems necessary to aid in the enforcement of standards issued and in effect under this Act and shall furnish the Attorney General and, when appropriate, the Secretary of the Treasury any information obtained and test results indicat-



ing noncompliance with such standards, for appropriate enforcement or customs action.

(b) For purposes of this section, officers and employees designated by the Secretary, upon presenting appropriate credentials and a written notice to the owner, operator, or agent in charge, are authorized to enter, at reasonable times,

(1) any plant, facility, warehouse, or other business establishment or premises where tires are held prior to their sale or delivery, or where tires are retreaded, and to make a reasonable inspection of such tires or (2) any motor vehicle assembly plant and to make a reasonable inspection, after the motor vehicles have left the assembly line, of the tires with which such motor vehicles are equipped.

(c) Every manufacturer and retreader of tires and every manufacturer of motor vehicles shall establish and maintain such records, make such reports, and provide such information as the Secretary may reasonably require to enable him to determine whether such manufacturer or retreader has acted or is acting in compliance with the provisions of this Act and standards prescribed pursuant to this Act and shall, upon request of an officer or employee duly designated by the Secretary, permit such officer or employee to inspect appropriate books, papers, records, and documents.

(d) All information reported to or otherwise obtained by the Secretary or his representative pursuant to subsection (b) or (c), which information contains or relates to a trade secret or other matter referred to in section 1905 of title 18 of the United States Code, shall be considered confidential for the purpose of that section, except that such information may be disclosed to other officers or employees concerned with carrying out this Act or when relevant in any proceeding under this Act.

#### PROHIBITED ACTS

##### SEC. 13. (a) No person shall—

(1) manufacture for sale, sell, offer for sale, or introduce or deliver for introduction in interstate commerce, or import into the United States for resale, any tire manufactured or retreaded or any motor vehicle assembled on or after the date any applicable standards take effect under this Act unless it is in conformity with such standards as prescribed or amended by the Secretary pursuant to section 4, 5, 6, 8, or 10 of this Act, except as provided in subsection (b) of this section; or

(2) fail or refuse to permit entry or inspection as authorized under section 12(b) of this Act or fail or refuse access to or copying of records, or fail to make reports or provide information, as required under section 12(c).

(b) Paragraph (1) of subsection (a) shall not apply to the sale, the offer for sale, or the introduction or delivery for introduction in interstate commerce of any tire or motor vehicle after the first purchase of it in good faith where the tire is labeled as conforming to Federal minimum safe performance standards.

(c) (1) A tire or motor vehicle offered for importation in violation of paragraph (1) of subsection (a) shall be refused admission into the United States, but the Secretary of the Treasury and the Secretary may, by joint regulations, provide for authorizing the importation of a tire or motor vehicle, or class thereof, into the United States upon such terms and conditions (including the furnishing of a bond) as may appear to them appropriate to insure that any such tire or motor vehicle will be brought into conformity with any applicable standards prescribed under this Act, or will be exported or abandoned to the Government.

(2) The Secretary of the Treasury and the Secretary may, by joint regulations, prohibit the importation of any tire or motor vehicle, or class thereof, into the United States, unless it meets any standards or regulations issued by the Secretary pursuant to the provisions of this Act.

(3) Paragraph (1) of subsection (a) shall not apply to a tire intended solely for export, if it is labeled on the outside of the shipping container to show that it is intended for export and is so exported.

(d) No person, firm, or corporation shall sell, offer for sale, or introduce for sale or deliver for introduction in interstate commerce any tire or motor vehicle equipped with any tire which has been regrooved, except that the Secretary may by order permit the sale of regrooved tires or motor vehicles equipped with such tire which he finds are designed and constructed in a manner consistent with the purposes of this Act.

## CIVIL PENALTY

SEC. 14. (a) Whoever violates any provision of section 13(a)(2) or 13(d), or any regulation issued thereunder, shall be subject to a civil penalty of not to exceed \$1,000 for each such violation.

(b) Any such civil penalty may be compromised by the Secretary. The amount of such penalty, when finally determined, or the amount agreed upon in compromise, may be deducted from any sums owing by the United States to the person charged.

## INJUNCTION; SUBPENAS

SEC. 15. (a) The United States district courts and the United States courts of the territories and of the Commonwealth of Puerto Rico shall have jurisdiction, for cause shown and subject to the provisions of rule 65 (a) and (b) of the Federal Rules of Civil Procedure, to restrain violations of this Act upon petition by the appropriate United States attorney or the Attorney General on behalf of the United States.

(b) In any proceeding for criminal contempt for violation of an order, injunction, or restraining order issued under this section, which violation also constitutes a violation of this Act, trial shall be by the court or, upon demand of the accused, by a jury. Such trial shall be conducted in accordance with the practice and procedures applicable in the case of proceedings subject to the provisions of rule 42 (b) of the Federal Rules of Criminal Procedure.

(c) In all libel or injunction proceedings for the enforcement, or to restrain violations, of this Act, subpoenas for witnesses who are required to attend a court of the United States in any district may run into any other district in any such proceeding.

## SEIZURE

SEC. 16. (a) Any motor vehicle tire that has been manufactured or introduced into commerce in violation of section 13 of this Act shall be liable to be proceeded against by the United States while in interstate commerce on libel of information and condemned in any district court of the United States and in any United States court for the territories, possessions, and the Commonwealth of Puerto Rico.

(b) Such tires shall be liable to seizure by process pursuant to the libel, and the procedure in cases under this section shall conform, as nearly as may be, to the procedure in admiralty; except that on demand of either party any issue of fact joined in any such case shall be tried by jury. When libel for condemnation proceedings under this section, involving the same claimant, are pending in two or more jurisdictions, such pending proceedings, upon application of the United States or the claimant seasonably made to the court of one such jurisdiction, shall be consolidated for trial by order of such court, and tried in (1) any district selected by the applicant where one of such proceedings is pending; or (2) a district agreed upon by stipulation between the parties. If no order for consolidation is so made within a reasonable time, the United States or the claimant may apply to the court of one such jurisdiction, and such court (after giving the other party, the claimant, or the United States attorney for such district, reasonable notice and opportunity to be heard) shall by order, unless good cause to the contrary is shown, specify a district of reasonable proximity to the claimant's principal place of business, in which all such pending proceedings shall be consolidated for trial and tried. Such order of consolidation shall not apply so as to require the removal of any case the date for trial of which has been fixed. The court granting such order shall give prompt notification thereof to the other courts having jurisdiction of the case covered thereby.

(c) Any tire condemned under this section shall, after entry of the decree, be disposed of by destruction or sale as the court may, in accordance with the provisions of this section, direct and the proceeds thereof, if sold, less the legal costs and charges, shall be paid into the Treasury of the United States, but such tire shall not be sold under such decree contrary to the provisions of this Act or the laws of the jurisdiction in which sold: *Provided*, That, after entry of the decree and upon the payment of the costs of such proceedings and the execution of a good and sufficient bond conditioned that such tire shall not be sold or disposed of contrary to the provisions of this Act or the laws of any State or territory in which sold, the court may by order direct that such tire be delivered to the owner thereof to be destroyed or brought into compliance with the provisions of this Act under the supervision of an officer or employee duly designated by the Secretary, and the expenses of such supervision shall be paid by the person obtaining release of the tire under bond.



(d) When a decree of condemnation is entered against the tire, court costs and fees, and storage and other proper expenses, shall be awarded against the person, if any, intervening as claimant of the tire.

(e) In the case of removal for trial of any case as provided by subsection (c) of this section—

(1) the clerk of the court from which removal is made shall promptly transmit to the court in which the case is to be tried all records in the case necessary in order that such court may exercise jurisdiction;

(2) the court to which such case is removed shall have the powers and be subject to the duties, for purposes of such case, which the court from which removal was made would have had, or to which such court would have been subject, if such case had not been removed.

#### REGULATIONS, AVOIDANCE OF DUPLICATION

SEC. 17. (a) The Secretary is authorized to issue and amend such rules and regulations as he deems necessary or appropriate to carrying out the provisions of this Act.

(b) The Secretary, in exercising the authority under this Act, shall utilize the services, research, and testing facilities of public and competent private agencies to the maximum extent he determines practicable in order to avoid duplication in research, facilities, or operation services.

#### AUTHORIZATION

SEC. 18. To carry out the purpose of this Act, there is authorized to be appropriated the sum of \$2,900,000 for the fiscal year ending June 30, 1967, \$1,450,000 for each of the fiscal years ending June 30, 1968, and 1969, and \$1,600,000 for each of the fiscal years ending June 30, 1970, 1971, 1972, 1973, and 1974.

Passed the Senate March 29 (legislative day, March 25), 1966.

Attest:

EMERY L. FRAZIER, *Secretary.*

DEPARTMENT OF STATE,  
Washington, D.C., May 25, 1965.

HON. OREN HARRIS,  
*Chairman, Committee on Interstate and Foreign Commerce,*  
*House of Representatives.*

DEAR MR. CHAIRMAN: This report on H.R. 7494, a bill "to provide that tires sold or shipped in interstate commerce for use on motor vehicles shall comply with certain safety and labeling requirements" is submitted in response to your request of April 16, 1965.

This bill would require that the Secretary of Commerce prescribe minimum safety and performance standards and a grading and labeling system for motor vehicle tires that are shipped in interstate commerce or imported into the United States. On the understanding that the same standards would apply to domestically produced and imported tires, this requirement would be consistent with the international obligations of the United States. Accordingly, the Department of State would have no objection to the enactment of this bill.

The Bureau of the Budget advises that from the standpoint of the Administration's program there is no objection to the submission of this report.

Sincerely yours,

DOUGLAS MACARTHUR II.,  
*Assistant Secretary for Congressional Relations*  
(For the Secretary of State).

GENERAL SERVICES ADMINISTRATION,  
Washington, D.C., June 2, 1965.

HON. OREN HARRIS,  
*Chairman, Committee on Interstate and Foreign Commerce,*  
*House of Representatives, Washington, D.C.*

DEAR MR. CHAIRMAN: This is in further reply to your letter dated April 16, 1965, requesting the comments of the General Services Administration on H.R. 7494, 89th Congress, a bill "To provide that tires sold or shipped in interstate

commerce for use on motor vehicles shall comply with certain safety and labeling regulations."

The bill would require the Secretary of Commerce to prescribe and publish in the Federal Register, not later than one year after enactment of the bill, regulations prescribing minimum safety and performance standards and a grading and labeling system for motor vehicle tires. It also would prohibit transactions in interstate commerce involving any tire failing to comply with the regulations prescribed by the Secretary. The effective date of the prohibition would be determined by the Secretary, but would be not less than 180 days nor more than one year after the publication of the regulations. Knowing and willful violation of the measure would be punishable by a fine of not more than \$1,000 or imprisonment for not more than one year, or both.

GSA has the responsibility, pursuant to Public Law 88-515 and sections 206 (a) (4) and 211(a) (5) of the Federal Property and Administrative Services Act of 1949, 63 Stat. 391, 68 Stat. 1126, as amended (40 U.S.C. 487(a) (4), 491(a) (5)), for prescribing standards for vehicles, including tires, purchased by the Government. Pursuant to its authority under the Property Act, GSA has developed Federal Specification No. ZZ-T-381 for tires. We have incorporated this specification into proposed Federal Standard No. 515/15, published pursuant to Public Law 88-515 in the Federal Register on January 26, 1965 (30 F.R. 801).

We believe that compliance with our specification should significantly reduce hazards attributable to tire failure, so far as Government vehicles are concerned.

We feel that the establishment of safety and performance standards and of a grading and labeling system for motor vehicle tires sold to the general public would substantially reduce the number of motor vehicle accidents caused by tire failure, and in addition, would to a considerable extent protect the consumer from the possibility of misleading advertising. GSA would therefore recommend enactment of H.R. 7494.

If H.R. 7494 were enacted, GSA would be happy to share its experience in the field of tire safety and performance with the Department of Commerce, to assist in the development of regulations pursuant to the legislation, and to coordinate them with existing GSA regulations.

The financial effects of the enactment of the legislative measure cannot be estimated.

The Bureau of the Budget has advised that, from the standpoint of the Administration's program, there is no objection to the submission of this report to your Committee.

Sincerely yours,

LAWSON B. KNOTT, Jr.,  
Acting Administrator.

GENERAL COUNSEL OF THE DEPARTMENT OF COMMERCE,  
Washington, D.C., February 4, 1966.

HON. HARLEY O. STAGGERS,  
Chairman, Committee on Interstate and Foreign Commerce,  
House of Representatives,  
Washington, D.C.

DEAR MR. CHAIRMAN: This is in further reply to your report for the views of this Department with respect to H.R. 11891, a bill "To establish safety standards for motor vehicle tires sold or shipped in interstate commerce, and for other purposes."

This bill would require the Secretary of Commerce to establish the tire safety standards of the Vehicle Equipment Safety Commission as interim mandatory standards, and to issue revised standards, if necessary, after two years based upon the research and development authorized by the bill. The Secretary would be authorized to conduct testing and inspection necessary for the enforcement of the Act. The Act authorizes enforcement either by seizure and condemnation of substandard tires or by injunction. The Secretary also would be directed to develop a uniform grading system for tires and to make recommendations to the Congress by January 31, 1971 for its implementation.

The Department of Commerce believes there is a need for appropriate legislation relating to tire standards. Subject to the comments below, we strongly favor enactment of H.R. 11891.



In the hearings by the Committee on Commerce of the United States Senate on May 25, 1965, assistant Secretary of Commerce J. Herbert Hollomon, in testifying for the Department, emphasized the need for research, as well as civil enforcement procedures, in an effective tire safety program. He also stated that the Department normally preferred the voluntary approach to standardization, but in this case would have no objection to discretionary authority in the Secretary of Commerce to issue mandatory standards, if the voluntary approach did not offer sufficient protection to the public.

H.R. 11891 includes provisions for research and civil enforcement, such as the Department suggested in those hearings. In addition, Section 3 requires interim mandatory standards and provides that the Secretary shall review and revise them to the extent necessary in the light of the results of the research and testing program. We believe it would be preferable simply to provide discretionary authority to issue mandatory safety standards. However, we would defer to your Committee as to the necessity for promulgating interim mandatory standards as provided in H.R. 11891.

In any event we recommend that amendments along the following lines be made in the bill.

Section 2(b) defines motor vehicles in a manner which excludes not only vehicles subject to regulation by the Interstate Commerce Commission, but also many other vehicles used on the highways, such as light trucks and trailers. Accordingly, we suggest that Section 2(b) be rewritten to read as follows:

"(b) The term 'motor vehicle' means any motor vehicle or drawn vehicle, primarily for use on the public roads and highways, other than a vehicle subject to safety regulations under Part II of the Interstate Commerce Act."

The above suggested language is similar to that used in Public Law 88-201, establishing seat belt safety standards and would exclude vehicles occasionally used on the highways, but primarily adapted for other uses, such as, for example, farm tractors or construction equipment.

Among the activities authorized by Section 4(c) in support of improved safety standards is research and development on standards for retreaded tires. Developing a safety standard for retreaded tires is extremely difficult. There are unpredictable variations in carcasses used for retreading, and tests of small samples for data gathering purposes would be almost meaningless. We have estimated that a minimum of four years would be required to develop suitable tests. Assuming that a satisfactory test can be developed, the nature of tire manufacturing could pose problems of enforcement under the provisions of the bill, and additional authority may well be needed to permit adequate enforcement.

Another suggestion we have relates to load standards for tires. Section 4(c) (4), which mentions factors to be considered in developing safety standards, could be construed together with Section 4(b) to mean that load standards should be established for each type of expected use for tires. This would be a formidable task from both the technical and enforcement point of view. The Department believes that there should be a minimum safety requirement for load, considering all uses. Separate standards should not be required or permitted for a car traveling a few miles to and from work with only the driver, since such a car may at any time be used for severe service. A passenger car, for example, frequently has a full load of passengers and luggage and travels at maximum legal speed on interstate highways for prolonged periods. Furthermore, it is not practical to develop methods and to test tires for every possible road hazard as suggested by this section. Even safe tires may be cut or damaged accidentally or through abuse in ways that a standard cannot prevent. We recommend that Section 4(b) be rewritten as follows:

"(b) In such revised minimum standards, the Secretary shall prescribe such maximum permissible loads for each motor vehicle tire, and the application of such maximum permissible load standards, as he determines to be necessary to achieve the purpose of Section 3."

We further recommend that Section 4(c) (4) be rewritten as follows:

"(4) Shall take into consideration such factors as size, load carrying ability under the conditions likely to be encountered in regular highway travel, resistance to impact and fatigue, resistance to cornering and skidding, resistance to detachment from rim, and such other factors as he deems relevant."

As rewritten, Section 4(c) (4) would permit the consideration of factors such as the characteristics of tires in their interaction with road surfaces.

We note that while H.R. 11891 refers to safety and grading standards it does not expressly require labeling. We assume that there is no intent in H.R. 11891 to restrict authority to require reasonable labeling as part of establishing safety standards, since the Vehicle Equipment Safety Commission Regulation V-1 on tire safety includes certain labeling requirements. We feel that reasonable labeling requirements would include information such as the name of the manufacturer or distributor, tire size, load rating and inflation pressure.

Finally, the enforcement provisions of the bill are not entirely clear. It appears that condemnation proceedings could be brought by private parties, and that substandard tires could be condemned while in the hands of the ultimate user. We question whether either of these would be desirable or practical.

In summary, we feel that enactment of H.R. 11891, subject to our comments above, would contribute importantly to the traffic safety program which President Johnson called for in this year's State of the Union Message.

We have been advised by the Bureau of the Budget that there would be no objection to the submission of this report to your Committee and further that the enactment of legislation along the lines of H.R. 11891 would be consistent with the Administration's objectives.

Sincerely,

ROBERT E. GILES, *General Counsel.*

---

THE GENERAL COUNSEL OF THE TREASURY,  
*Washington, D.C., March 10, 1966.*

HON. HARLEY O. STAGGERS,  
*Chairman, Committee on Interstate and Foreign Commerce, House of Representatives, Washington, D.C.*

DEAR MR. CHAIRMAN: Reference is made to your request for the views of this Department on H.R. 11891, "To establish safety standards for motor vehicle tires sold or shipped in interstate commerce, and for other purposes."

The proposed legislation directs the Secretary of Commerce to establish and publish in the Federal Register and from time to time to revise certain tire safety standards.

Section 6 of the bill is to take effect not less than 30 days nor more than 90 days after publication of the regulations first prescribed by the Secretary of Commerce. Among the acts prohibited by section 6(a) is the importation of any motor vehicle tire manufactured on or after the effective date of this section unless in compliance with the published standards. To base such a prohibition on a determination as to whether certain tires are manufactured on or after the effective date of the bill would present administrative problems with respect to imported tires in ascertaining the actual date of manufacture, and, in addition, would allow the importation of unsafe tires which are shown to be manufactured prior to such effective date. Consequently, consideration should be given to amending section 6(a) with respect to imported tires, to prohibit the importation of nonconforming tires which are entered into the United States on or after the effective date of section 6, without regard to the date of manufacture.

Section 6(b) prohibits, in part, the importation of any new motor vehicles equipped with tires not in compliance with the standards prescribed by the Secretary of Commerce.

Section 7 of the bill provides that nonconforming tires (except those intended for export) which have entered interstate commerce may be proceeded against by libel and condemned under procedures conforming, as nearly as may be, to admiralty procedures. No provision is made for detention by the Treasury's Bureau of Customs of nonconforming imported tires prior to their entry into interstate commerce. If it is the intention of the Congress that this Department should perform administrative and enforcement functions under this bill, to implement the prohibition in section 6 of the importation of such tires, a separate provision would be necessary to authorize the detention of such tires at the time of importation and their release under bond until they are shown to comply with the established standards, and their reexportation or other disposition if prescribed standards are not satisfied. The present provision for seizure and condemnation by libel proceedings after entry into interstate commerce, in the event of noncompliance, should continue to be limited to tires which have entered interstate commerce, and would be enforced by some other agency.



A provision for the release of imported tires under bond, conditioned upon their redelivery if they are found not to conform to the prescribed standards, would be similar to provisions or other laws enforced by this Department and would minimize administrative problems involved in the storage and handling of imported tires until compliance with the act is determined. Failure to redeliver such tires would incur a charge against the bond.

If the revisions discussed above are made in the bill, they should include authority for the Secretary of the Treasury to promulgate implementing procedural regulations with respect to imported tires.

It is assumed, however, that since the Secretary of Commerce is authorized under section 10(a) to conduct such testing and inspection as he deems necessary for the enforcement of the act, this Department would not be required or expected to examine or test tires to determine compliance with the prescribed standards. It is also assumed that the Secretary of Commerce in establishing standards would, by regulation, provide for some form of certification to show compliance. This Department would therefore be required only to obtain the prescribed certification for imported tires and to furnish such samples as the Secretary of Commerce may require to determine compliance.

The Department has been advised by the Bureau of the Budget that there is no objection from the standpoint of the Administration's program to the submission of this report to your Committee.

Sincerely yours,

FRED B. SMITH,  
*Acting General Counsel.*

FEDERAL TRADE COMMISSION,  
*Washington, D.C., March 15, 1966.*

HON. HARLEY O. STAGGERS,  
*Chairman, Committee on Interstate and Foreign Commerce,  
House of Representatives, Washington, D.C.*

DEAR MR. CHAIRMAN: This is in response to your letter of January 14, 1966, requesting the Commission's views on H.R. 11891, 89th Congress, 2d Session, a bill "To establish safety standards for motor vehicle tires sold or shipped in interstate commerce, and for other purposes."

The bill, which is the same as S. 2669, 89th Congress, 1st Session, provides that it may be cited as the "Tire Safety Act of 1966." As we interpret the bill, it would delegate to the Secretary of Commerce the authority to promulgate minimum safety standards for tires used on "motor vehicles," which is defined in the bill as meaning passenger cars and station wagons used on the highways, except those regulated under certain specific provisions of the Interstate Commerce Act. The bill further authorizes and directs the Secretary of Commerce to develop a uniform grading system for motor vehicle tires.

It specifically provides that the Secretary shall establish and publish as interim minimum safety standards in the Federal Register the tire safety standards substantially as prescribed by the Vehicle Equipment Safety Commission, an interstate agency which was established pursuant to a joint resolution of Congress.

Two years after the effective date of the bill and thereafter as he deems necessary, the Secretary is required to review and revise to the extent necessary the aforementioned interim minimum safety standards. In such revised minimum standards, the Secretary is required to prescribe the maximum permissible loads for each motor vehicle tire and the application of such standards. The bill then sets out what the Secretary shall do in carrying out this requirement. Among the activities that the Secretary is directed to undertake in carrying out the safety standard provisions of the bill is the conducting of a research and development program to (1) improve minimum safety standards for new tires, and (2) develop minimum safety standards for retreaded tires.

He is also directed to take into consideration such factors as size, load-carrying ability and its relation to the type of expected use, skid resistance, blowout resistance, resistance to curb-striking and pothole or bump damage, cornering ability and rim resistance. He is further required to consult with

interested industries, technical organizations, Federal, State and local agencies.

The bill requires the Secretary to make recommendations to Congress by January 31, 1971, with respect to the implementation of the grading system of motor vehicle tires he is directed to establish.

The Secretary is authorized to conduct such testing and inspection as he deems necessary for the enforcement of the provisions of the bill.

The bill prohibits the manufacture for sale, the sale, or the offering for sale, in interstate commerce, or the importation to the United States as well as the introduction, delivery for introduction, or transportation, in interstate commerce, or for the purpose of sale, or delivery after sale, in interstate commerce of any tire which does not comply with the safety standards prescribed by the Secretary.

Any tire manufactured or introduced into commerce in violation of the prohibited acts is liable to seizure in any district court of the United States within the jurisdiction in which the tire is found. Such seizure is to be in conformity as nearly as may be to that followed in cases in admiralty, except that a jury trial may be accorded when demanded.

The bill provides for the issuing of injunctions and restraining orders and contains provisions concerning criminal contempt for violations thereof.

Tire manufacturers are required by the bill to maintain such records and make such reports as requested by the Secretary to insure compliance.

The Federal Trade Commission wholeheartedly supports the objectives and purpose of H.R. 11891.

As your committee is aware, the Commission in January of 1965 held three days of public hearings on various aspects of tire marketing. Among the subjects considered was the need for minimum safety standards, the adequacy of existing standards and the need for a system of tire grading. Since the hearings, the Commission's staff has continued to study the problems to encompass current developments including the recent revisions in the existing standards of the Vehicle Safety Equipment Commission effective October 10, 1965, and of the Rubber Manufacturers Association, effective January 1, 1966.

In our opinion, the need for minimum safety standards for automotive tires is now beyond question. The industry, by its adoption of such standards has recognized their necessity. The activity of the Vehicle Equipment Safety Commission in adopting tire standards only serves to buttress our conclusion, based on our hearings and our study of all the authorities, that minimum safety standards are necessary and that the present industry standards are inadequate for that purpose.

The Commission has received substantial evidence that, even with their recent revisions, the Vehicle Equipment Safety Commission and Rubber Manufacturers Association's standards fail to provide realistic and adequate safeguards against unsafe tires. Both sets of existing standards fail to make any provision for the problem of "overload." It is our understanding that overload is a situation which exists when the curb weight of a vehicle plus the designed load capacity in terms of passengers and luggage exceed the load-carrying capacity of tires mounted on the vehicle. Much evidence was presented at the Commission hearing, including a statement by a tire manufacturer, that many original equipment tires mounted on new cars may be inadequate to safely carry the passenger and baggage load the vehicle is intended to carry.

Our study has also raised grave doubts whether the performance requirements and the allowable tolerances in the existing standards, as revised, are sufficiently stringent in light of current high-speed turnpike and other highway use. The specific levels of desirable performance and tolerance are technical matters which we are not equipped to evaluate adequately. Although our staff has discussed this problem with the National Bureau of Standards and has been advised that the requirements and tolerances of the current standards are too low, we shall leave specific comments to the Secretary of Commerce, who we understand will present his views to this committee.

A further defect in the existing minimum safety standards, which we feel is of utmost significance, is their enforcement provisions. The Rubber Manufacturers Association's standards are described as "voluntary." Manufacturers whose tires fail to meet the standards suffer only the withdrawal of its name from the Association's Certified Tire Directory and the right to advertise that its tires meet the standards. The manufacturer may still offer these tires for sale without restriction. In our opinion, reliance only on "voluntary" standards for a



product involving the life and safety of the purchaser is not a sufficient safeguard of the public interest.

Enforcement of the Vehicle Equipment Safety Commission's standards is also voluntary at the present time and their implementation will be left to the individual member states and the statutory authority available to each. There is no assurance that all of the member states will adopt the proposed standards and even if they do, this will still leave the six states which are not members and which accordingly are not parties to these standards. Moreover, even adoption of these standards by all members will provide no assurance that the standards will be enforced equally in each state. In our opinion, the motoring public of the entire United States is entitled to uniform protection of *mandatory* minimum safety standards.

With respect to the grading system which is provided for in the bill under consideration, the testimony received during our proceeding indicated that a great deal of consumer confusion and deception exists as a result of grade representations and claims currently used in the marketing of tires.

We believe confusion and deception are the results inherent in the existing situation where approximately 950 different tire names currently marketed represent the products of approximately 120 private-label marketers and 14 tire manufacturers; where tires may be designated as to grade, i.e., "premium," "first line," "second line," etc., regardless of the tire's performance or safety; where the price of the tire has no discernible relation to its grade or safety level; and where many of the descriptive terms employed, such as ply rating, 100 level, and other grade designations, have no fixed meaning or definitive value under existing industry practices.

Testimony adduced at the hearing reflects that one manufacturer's "first-line" tire may be inferior to another manufacturer's "third-line" tire; and a manufacturer may supply a tire represented by him as a "third-line" tire to a private-label marketer who is free to designate it as his "premium" tire.

We feel that H.R. 11891 goes a long way in providing a solution to both the safety and the grade problems which hearings and our study demonstrated exist in the marketing of automobile tires. Section 3 eliminates the "voluntary" nature of existing standards by adopting the Vehicle Equipment Safety Commission's standards as an interim measure. Although, as we have indicated, we are not satisfied as to the adequacy of these standards, we feel that their interim adoption immediately under this bill will be at least an initial step towards the establishment of minimum safety standards.

Section 4 of the bill directs the Secretary of Commerce to review and revise the Vehicle Equipment Safety Commission's standards prescribed in section 3 and specifically provides for the establishment of maximum load capacities for tires. These actions are of absolute necessity and will eliminate ultimately the defects and inadequacies of the requirements and tolerances which are now present in the existing standards.

Section 5 of the bill authorizes and directs the Secretary to develop a uniform grading system for motor vehicle tires. In our opinion, this is a most salutary provision in that there are no adequate industrywide standards for grading tires.

The Commission reiterates its support of the objectives and purpose of H.R. 11891 and unequivocally supports its enactment.

By direction of the Commission.

PAUL RAND DIXON, *Chairman*.

N.B. Pursuant to regulations, this report was submitted to the Bureau of the Budget on February 3, 1966, and on March 14, 1966, the Bureau of the Budget advised that there is no objection to the submission of this report from the standpoint of the Administration's program.

JOSEPH W. SHEA, *Secretary*.

FEDERAL TRADE COMMISSION,  
Washington, D.C., March 15, 1966.

HON. HARLEY O. STAGGERS,  
*Chairman, Committee on Interstate and Foreign Commerce,*  
*House of Representatives,*  
Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your request of February 25, 1966, for the Commission's views on H.R. 12989, 89th Congress, 2d Session, a bill "To provide that tires sold or shipped in interstate commerce for use on motor vehicles shall comply with certain safety and labeling regulations."

The subject bill is identical with S. 1643, 89th Congress, 1st Session. On Commerce Committee. I am attaching a copy of the Commission's statement (attachment A). As you are undoubtedly aware, the latest bill on tire safety is S. 2669, 89th Congress, 1st Session, which was introduced after S. 1643 and is more comprehensive than that bill. Furthermore, the President, in his message to Congress on March 2, 1966 (112 Cong. Rec. 4351-4356 [daily ed. March 2, 1966]) on transportation, stated:

"Our driving public deserves the prompt passage of S. 2669, and the protection it will afford them from accidents caused by tire failures."

The Commission supports the purpose of the subject bill but suggests, for the consideration of the committee, that it be changed to conform to S. 2669.

In response to a request from the Chairman of the Senate Committee on Commerce for the views of the Commission on S. 2669, the Commission submitted its report on January 28, 1966. For your information, we are attaching a copy of that report (attachment B).

By direction of the Commission.

PAUL RAND DIXON, *Chairman*.

N.B. Pursuant to instructions, this report was communicated to the Bureau of the Budget on March 14, 1966, and on that day the Bureau advised the Commission that there is no objection to the submission of this report from the standpoint of the Administration's program.

JOSEPH W. SHEA, *Secretary*.

#### ATTACHMENT A

STATEMENT OF HON. PAUL RAND DIXON, CHAIRMAN, FEDERAL TRADE COMMISSION, BEFORE THE COMMITTEE ON COMMERCE, UNITED STATES SENATE, MAY 25, 1965

Mr. Chairman: It is a pleasure to appear before you to comment on S. 1643, a bill now under consideration which would provide regulations for motor vehicle tires.

The bill would direct the Secretary of Commerce to prescribe regulations establishing minimum safety and performance standards and a grading and labeling system for motor vehicle tires in order that the public will be provided with safe tires. The bill stipulates that such regulations shall become effective one year after the date of enactment and that its enforcement shall take effect between one hundred eighty days and one year after issuance of the regulations. The bill would prohibit the manufacture, sale and transportation in interstate commerce, and the importation into the United States of tires manufactured on or after the effective date of the regulations which did not comply with them. Criminal penalties are provided for willful violation.

Prior to making specific comment on the bill under consideration, I believe that it may prove useful to refer to some background information we have relative to the current nature of the tire industry.

The tire manufacturing industry is an integral part of our national economy, since the automobile has long since become far more than a mere luxury item for the average American family. Cars today, traveling as they must on tires, are higher powered, traveling farther distances at higher sustained speeds, carrying greater loads, on our ever-growing system of improved super highways.

To meet this consumer need, the 14 domestic tire manufacturers are producing passenger car tires at an annual rate of well over one hundred million. Statistics at our disposal reflect that in 1964, approximately 42½ million original equipment tires were placed on new automobiles, and that over 87 million new tires were sold in the replacement passenger car market. In addition, it is our understanding that 35 million retreaded tires were sold in the replacement market during 1964. It is also estimated that there were 288 million passenger car tires in use at the close of the year 1964. In view of these staggeringly large totals, it is clear that the pricing practices, guarantees, quality and safety of tires are all matters of considerable concern to the public. In addition to the aforementioned 14 domestic tire manufacturers who market tires under their own brand names, we are informed that there are, at present, approximately 120 private label tires available in the replacement market, and a total of over 940 different tire names from which the consumer may choose.

The Commission has been aware for some time of the ever-mounting degree of public interest in the subject of traffic safety. The increasing number of interstate highways with higher speed limits, the ever-increasing number of



automobiles and drivers making use of these highways, and the annually mounting toll of deaths, injuries and property damage on our roads have resulted in a growing awareness of the need for remedial measures in the area of traffic safety.

During the past five years, this public concern has been increasingly focused on the relationship of tire safety to the over-all problem of traffic safety and has been evidenced by legislative activity on both a State and Federal level; by industry and trade association activity; consumer communications; and the spate of articles which continue to appear in the trade and public press.

Activity seeking solutions to this national problem is currently in progress on Federal, State, local and private levels. For example, during 1962, the National Tire Dealers and Retreaders Association applied to the Department of Commerce's Division of Commodity Standards for assistance in the formulation of voluntary safety standards for tires. Several meetings were held attended by dealer and retreader representatives, engineers representing tire manufacturers and Bureau of Standards personnel, but the project was apparently abandoned because of the inability of the various parties to reconcile their views.

In the latter part of 1963, thirty-one States joined together to form the Vehicle Equipment Safety Commission to recommend codes or other regulations embodying performance requirements for vehicle equipment.

In New York State, the Joint Legislative Committee on Motor Vehicles and Traffic Safety conducted a series of hearings during 1963 and 1964 which culminated in the introduction of proposed legislation which would have established mandatory minimum safety standards. This proposed legislation, which was opposed by the Rubber Manufacturers' Association and the Automobile Manufacturers' Association, failed of passage in March 1964.

In apparent response to this flurry of legislative interest, the Rubber Manufacturers' Association (RMA), which represents all the domestic tire manufacturers, announced on July 1, 1964, the adoption by all domestic tire manufacturers of a set of minimum safety standards. This action was supplemented in August 1964 by RMA's adoption of a voluntary compliance program entailing certification and testing procedures.

As you are aware, the Commission held hearings relating to the marketing of automobile tires on January 13, 14 and 15, 1965. The matters which were the subject of this hearing were:

1. Price advertising
2. Pro rata guarantees
3. Grade and quality
4. Tire safety, and

5. Tire size which has a definite relation to the subject of tire safety in general, and specifically to the problem of overload, another factor relating to tire safety.

Testimony adduced at the recent Commission hearings on tires confirmed the existence of a substantial belief on the part of the public as to the need for minimum safety standards for passenger car tires and as to the inadequacy of current RMA voluntary minimum standards to satisfy that need.

At the hearing, the need for safety standards was urged by the National Tire Dealers and Retreaders Association, several State agency heads or officials entrusted with traffic safety responsibilities, a tire manufacturer who is an RMA member, the director of an independent testing laboratory, tire dealers, retreaders, tire users and a consumer publication.

The head of the Rubber Manufacturers' Association (RMA) also testified as to the industry's concern for tire safety and its awareness of its responsibility to produce and supply a safe product. However, the RMA's position, urged also by individual tire manufacturers who testified, was that the recently promulgated RMA minimum standards adequately insure that all new tires are safe tires.

It should be noted that the RMA standards are patterned on the existing Federal Specification for passenger car tires, but in the opinion of Bureau of Standards personnel are less severe in their requirements and test procedures. It should also be noted that the Federal Specifications was originally issued in 1930 and has undergone 10 revisions, the last of which occurred in 1959. It is our understanding that the original Specification and all the revisions were based on work done by the National Bureau of Standards prior to 1953.

Our hearing contains substantial testimony as to the inadequacy of these RMA standards. The record contains statements by technical experts, inside and outside the Federal Government, that these standards are inadequate in certain respects, that they fail to reflect current performance demands on tires, and that they are in need of revision.

The specific safety problems which were developed at greatest length during our hearing relate principally to the matters of tire size and the so-called practice of overloading, which are interrelated.

Overload is the situation which exists when the curb weight of a vehicle plus the designed load capacity in terms of passengers and luggage exceeds the load carrying capacity of the tires with which the vehicle is equipped. The matter of tire size is directly related to the overload problem in that, all other things being equal, the size of the air chamber and the amount of inflation pressure therein determines the amount of load the tire can bear.

It is our understanding that the danger of overloading tires is the result of the heat buildup in the tire which results from constant flexing of the walls of the overloaded tire. Heat, the enemy of a tire, weakens the fabric in the rubber and saps the strength of the adhesive which holds together the various layers of fabric and rubber, or other material, of which a tire is made.

Overloading, at best, will result in shortened tire life, and, at worst, in tire failure, property damage, personal injury or death.

Our record contains a number of statements to the effect that many original equipment tires mounted on new cars are inadequate to safely carry the passenger and baggage load the vehicle is designed to carry. One tire manufacturer stated that "over the years, vehicle manufacturers, in an attempt to cut costs, have cut down the amount of tire they are designing onto their vehicles, and that some vehicles are overloaded when they are empty of passengers or baggage."

Our record also reflects statements by tire industry engineers that the tire load capacity standards published by the Tire and Rim Association which, until the publication of their annual 1964-65 Yearbook, have always been characterized as "Maximum Tire Loads \* \* \*" were really representative of load ratings based upon *average* passenger loadings and do not represent *maximum* tire loadings. These load ratings are used by automobile and tire manufacturers as the basis for selection of original equipment tires for new cars.

At our hearing, one tire industry representative testified that, "For example, with a six passenger sedan, the weight of three passengers is added to the curb weight of the vehicle to determine the load that is to be used to select the tires."

Also included in the record are statements by RMA representatives that tire size designations which are customarily represented in dimensional terms are not intended to precisely define a tire's dimensions, but are merely approximations.

There are also allegations by a trade association representing independent tire dealers and retreaders that the practice of undersizing tires both as to section width and outside diameter was engaged in by manufacturers in order to cut production costs and lower tire prices.

The Commission is not at this time in a position to evaluate precisely all of the testimony and written submissions offered during its tire hearing. In most instances, such an evaluation would require the availability of extensive and "in depth" tire testing facilities and procedures relating to a wide variety of factors which have bearing on the questions of tire safety, grade and quality. The necessary facilities and procedures, and the current knowledge and controlled laboratory experience required to perform and evaluate these tests are not, at present, as far as we have been able to determine, available to the Federal Government.

However, it is our opinion that an overall study of the public record of the Commission's proceeding is supportive and illustrative of the current need for technically sound tire safety standards which would insure the new car owner and the replacement tire purchaser that his tires possess certain minimum safety qualities regardless of the price paid for the tires.

With respect to the matter of tire grade and labeling and its relation to the "... grading and labeling system" which is provided for in the bill under consideration, the testimony received during our proceeding indicated that a great deal of consumer confusing and deception exists as a result of the "line," grade and quality representations and claims currently used in the marketing of tires.



We believe confusion and deception are the results inherent in the existing situation where the approximately 950 different tire names currently marketed represent the products of approximately 120 private label marketers and 14 tire manufacturers; where tires may be designated as to quality, i.e., "premium," "first line," "second line," etc., regardless of the tire's inherent quality or safety; where the price of the tire has no discernible relation to its quality or safety level; and where many of the descriptive terms employed, such as ply rating, 100 level, and other grade designations, have no real meaning or definitive value in the absence of uniform standards.

Testimony adduced at the hearing reflects that one manufacturer's "first line" tire may be inferior to another manufacturer's "third line" tire; and a manufacturer may supply a tire represented by him as a "third line" tire to a private label marketer who is free to designate it as his "premium" tire.

The testimony received also pointed up the fact that a very substantial degree of difficulty may well be involved in any attempt to develop grade, quality and labeling standards. The testimony at the Commission hearing was conflicting in this regard.

Tire industry spokesmen, who commented on the matter of grade and quality standards, testified to the effect that:

1. The development of such standards would be extremely difficult if not impossible of achievement because of the complex technology of tire manufacture involving so many factors and characteristics, and combinations thereof.

2. That such standards would be impractical because the delineation or specific definition of the various grades of tires involves a subjective judgment stressing certain factors or performance characteristics, and that the resulting grade definitions might not be suitable or adequate for individual tire users.

3. That such standards might tend to freeze the industry's technology.

On the other hand, the record also reflects technical testimony to the effect that such standards:

1. Would be technologically possible, the speed of achievement depending upon the degree of industry cooperation, and the facilities, manpower and financing made available in the event of Federal Government participation.

2. Would help to dispel unfair marketing conditions such as are currently prevalent.

3. Would assist tire manufacturers and dealers in clearly describing and defining the superior qualities of their products.

We have not completed our analysis of the available data respecting problems of grade and quality to enable us to make a judgment now on whether a grading and labeling system is either necessary or desirable.

On the other hand, some of the present consumer confusion and deception, which became evident during our hearings, engendered by the proliferation of tire names and grades currently offered in the marketplace, and their "first line," "second line," and comparable advertising may be susceptible to correction through customary Federal Trade Commission procedures.

In summary, the Commission supports Federal legislation looking toward the development of minimum safety tire standards by the Department of Commerce. Once such standards are promulgated by the Secretary of Commerce, the Commission believes that the administration and enforcement of the bill would be immeasurably strengthened if the bill included provisions comparable to those of the Flammable Fabrics Act.

We would also like to point out that the present bill is addressed in a general fashion to "... motor vehicles tires." The term "motor vehicle" is defined therein as including "... any vehicle or machine propelled or drawn by mechanical power and used on the highways." As we interpret this provision, the bill would include the development of safety standards and grading and labeling for tires designed for such diverse vehicles as tractors, road graders, earth movers, trucks, buses, motorcycles, and others. Since our proceeding was specifically limited to "automobile tires," we have no information as to the need for standards on these other varieties of tires designed for use on other types of vehicles.

Although S. 1643 would impose criminal penalties on willful violators, it makes no specific provision for regulation and enforcement. In the absence thereof, it would appear that enforcement would fall within the purview of the Department of Justice. We suggest that consideration be given to providing specifically that enforcement responsibility be assigned to an agency which has

the necessary experience and facilities to conduct a continuing enforcement program, which might include a program of inspection and testing.

We also feel that the rather general language of the bill in referring to "... a grading and labeling system ..." would permit a number of approaches to the development of such a system which could be of a markedly different character. It is suggested that consideration be given to describing this "system" in more definitive terms.

Another suggestion we would make for the consideration of the Committee is that a bill requiring the labeling of tires should have specific provisions as to the party or parties responsible for such labeling. This would be similar to the requirement in the Wool Products Labeling Act, which the Commission administers, 15 U.S.C. 68(c), wherein the manufacturer is the party responsible for affixing the label to the wool product.

I would like to state that the Commission is currently considering what steps it can take, based upon the public record in one proceeding, to eliminate consumer deception with respect to a number of current practices employed in the marketing of automobile tires, including the matters of tire safety and grade and quality designations.

I trust that my remarks and suggestions will be helpful to this Committee. May I reiterate that the Commission is intensely interested in tire safety, and that the staff of the Commission at all times is ready to cooperate with any members of this Committee in advancing automobile tire safety.

#### ATTACHMENT B

FEDERAL TRADE COMMISSION,  
Washington, D.C., January 28, 1966.

HON. WARREN G. MAGNUSON,  
*Chairman, Committee on Commerce,  
United States Senate,  
Washington, D.C.*

DEAR MR. CHAIRMAN: This is in response to your letter of October 20, 1965, requesting the Commission's views on S. 2669, 89th Congress, 1st Session, a bill "To establish safety standards for motor vehicle tires sold or shipped in interstate commerce, and for other purposes."

The bill provides that it may be cited as the "Tire Safety Act of 1966." As we interpret the bill, it would delegate to the Secretary of Commerce the authority to promulgate minimum safety standards for tires used on "motor vehicles," which is defined in the bill as meaning passenger cars and station wagons used on the highways, except those regulated under certain specific provisions of the Interstate Commerce Act. The bill further authorizes and directs the Secretary of Commerce to develop a uniform grading system for motor vehicle tires.

It specifically provides that the Secretary shall establish and publish as interim minimum safety standards in the Federal Register the tire safety standards substantially as prescribed by the Vehicle Equipment Safety Commission, an interstate agency which was established pursuant to a joint resolution of Congress.

Two years after the effective date of the bill and thereafter as he deems necessary, the Secretary is required to review and revise to the extent necessary the aforementioned interim minimum safety standards. In such revised minimum standards, the Secretary is required to prescribe the maximum permissible loads for each motor vehicle tire and the application of such standards. The bill then sets out what the Secretary shall do in carrying out this requirement. Among the activities that the Secretary is directed to undertake in carrying out the safety standard provisions of the bill is the conducting of a research and development program to (1) improve minimum safety standards for *new* tires, and (2) develop minimum safety standards for *retreaded* tires.

He is also directed to take into consideration such factors as size, load-carrying ability and its relation to the type of expected use, skid resistance, blowout resistance, resistance to curb-striking and pothole or bump damage, cornering ability and rim resistance. He is further required to consult with interested industries, technical organizations, Federal, State and local agencies.



The bill requires the Secretary to make recommendations to Congress by January 31, 1971, with respect to the implementation of the grading system of motor vehicle tires he is directed to establish.

The Secretary is authorized to conduct such testing and inspection as he deems necessary for the enforcement of the provisions of the bill.

The bill prohibits the manufacture for sale, the sale, or the offering for sale, in interstate commerce, or the importation to the United States as well as the introduction, delivery for introduction, or transportation, in interstate commerce, or for the purpose of sale, or delivery after sale, in interstate commerce of any tire which does not comply with the safety standards prescribed by the Secretary.

Any tire manufactured or introduced into commerce in violation of the prohibited acts is liable to seizure in any district court of the United States within the jurisdiction in which the tire is found. Such seizure is to be in conformity as nearly as may be to that followed in cases in admiralty, except that a jury trial may be accorded when demanded.

The bill provides for the issuing of injunctions and restraining orders and contains provisions concerning criminal contempt for violations thereof.

Tire manufacturers are required by the bill to maintain such records and make such reports as requested by the Secretary to insure compliance.

The Federal Trade Commission wholeheartedly supports the objectives and purpose of S. 2669.

As your committee is aware, the Commission in January of 1965 held three days of public hearings on various aspects of tire marketing. Among the subjects considered was the need for minimum safety standards, the adequacy of existing standards and the need for a system of tire grading. Since the hearings, the Commission's staff has continued to study the problems to encompass current developments including the recent revisions in the existing standards of the Vehicle Safety Equipment Commission effective October 10, 1965, and of the Rubber Manufacturers Association, effective January 1, 1966.

In our opinion, the need for minimum safety standards for automotive tires is now beyond question. The industry, by its adoption of such standards has recognized their necessity. The activity of the Vehicle Equipment Safety Commission in adopting tire standards only serves to buttress our conclusion, based on our hearings and our study of all the authorities, that minimum safety standards are necessary and that the present industry standards are inadequate for that purpose.

The Commission has received substantial evidence that, even with their recent revisions, the Vehicle Equipment Safety Commission and Rubber Manufacturers Association's standards fail to provide realistic and adequate safeguards against unsafe tires. Both sets of existing standards fail to make any provision for the problem of "overload." It is our understanding that overload is a situation which exists when the curb weight of a vehicle plus the designed load capacity in terms of passengers and luggage exceed the load-carrying capacity of tires mounted on the vehicle. Much evidence was presented at the Commission hearing, including a statement by a tire manufacturer, that many original equipment tires mounted on new cars may be inadequate to safely carry the passenger and baggage load the vehicle is intended to carry.

Our study has also raised grave doubts whether the performance requirements and the allowable tolerances in the existing standards, as revised, are sufficiently stringent in light of current high-speed turnpike and other highway use. The specific levels of desirable performance and tolerance are technical matters which we are not equipped to evaluate adequately. Although our staff has discussed this problem with the National Bureau of Standards and has been advised that the requirements and tolerances of the current standards are too low, we shall leave specific comments to the Secretary of Commerce, who we understand will present his views to this committee.

A further defect in the existing minimum safety standards, which we feel is of utmost significance, is their enforcement provisions. The Rubber Manufacturers Association's standards are described as "voluntary." Manufacturers whose tires fail to meet the standards suffer only the withdrawal of its name from the Association's Certified Tire Directory and the right to advertise that its tires meet the standards. The manufacturer may still offer these tires for sale without restriction. In our opinion, reliance only on "voluntary" standards for a product involving the life and safety of the purchaser is not a sufficient safeguard of the public interest.

Enforcement of the Vehicle Equipment Safety Commission's standards is also voluntary at the present time and their implementation will be left to the individual member states and the statutory authority available to each. There is no assurance that all of the member states will adopt the proposed standards and even if they do, this will still leave the six states which are not members and which accordingly are not parties to these standards. Moreover, even adoption of these standards by all members will provide no assurance that the standards will be enforced equally in each state. In our opinion, the motoring public of the entire United States is entitled to uniform protection of mandatory minimum safety standards.

With respect to the grading system which is provided for in the bill under consideration, the testimony received during our proceeding indicated that a great deal of consumer confusion and deception exists as a result of grade representations and claims currently used in the marketing of tires.

We believe confusion and deception are the results inherent in the existing situation where approximately 950 different tire names currently marketed represent the products of approximately 120 private-label marketers and 14 tire manufacturers; where tires may be designated as to grade, i.e., "premium," "first line," "second line," etc., regardless of the tire's performance or safety; where the price of the tire has no discernible relation to its grade or safety level; and where many of the descriptive terms employed, such as ply rating, 100 level, and other grade designations, have no fixed meaning or definitive value under existing industry practices.

Testimony adduced at the hearing reflects that one manufacturer's "first-line" tire may be inferior to another manufacturer's "third-line" tire; and a manufacturer may supply a tire represented by him as a "third-line" tire to a private-label marketer who is free to designate it as his "premium" tire.

We feel that S. 2669 goes a long way in providing a solution to both the safety and the grade problems which hearings and our study demonstrated exist in the marketing of automobile tires. Section 3 eliminates the "voluntary" nature of existing standards by adopting the Vehicle Equipment Safety Commission's standards as an interim measure. Although, as we have indicated, we are not satisfied as to the adequacy of these standards, we feel that their interim adoption immediately under this bill will be at least an initial step toward the establishment of minimum safety standards.

Section 4 of the bill directs the Secretary of Commerce to review and revise the Vehicle Equipment Safety Commission's standards prescribed in section 3 and specifically provides for the establishment of maximum load capacities for tires. These actions are of absolute necessity and will eliminate ultimately the defects and inadequacies of the requirements and tolerances which are now present in the existing standards.

Section 5 of the bill authorizes and directs the Secretary to develop a uniform grading system for motor vehicle tires. In our opinion, this is a most salutary provision in that there are no adequate industrywide standards for grading tires.

The Commission reiterates its support of the objectives and purpose of S. 2669 and unequivocally supports its enactment.

By direction of the Commission.

PAUL RAND DIXON, *Chairman.*

FEDERAL TRADE COMMISSION,  
Washington, D.C., April 21, 1966.

HON. HARLEY O. STAGGERS,  
*Chairman, Committee on Interstate and Foreign Commerce,  
House of Representatives,  
Washington, D.C.*

DEAR MR. CHAIRMAN: This is in response to your letters of March 17, 1966, on H.R. 13666 and April 1, 1966, on S. 2669, 89th Congress, 2d Session, requesting our views on the bill and act, both of which are entitled "To establish safety standards for motor vehicle tires sold or shipped in interstate commerce, and for other purposes."

While both the bill and the act have the same title, they are not identical in all respects. However, they are similar to H.R. 12989, 89th Congress, 2d Session, on which the Commission submitted a report to this committee under date of March 15, 1966.



In the report, the Commission called attention to the fact that H.R. 12989 was identical with S. 1643, 89th Congress, 1st Session, on which the Commission, under date of May 25, 1965, had presented to the Senate Commerce Committee a statement containing its views, which was attached to the report.

Furthermore, in the report on H.R. 12989, the Commission stated that it supported the purpose of the bill, but suggested, for the consideration of the committee, that it be changed to conform to S. 2669, 89th Congress, 1st Session, as originally introduced on October 19, 1965, after the introduction of S. 1643; we felt that bill was more comprehensive than S. 1643; also S. 2669 was recommended specifically for passage by the President in his message to Congress on March 2, 1966.

With our report of March 15, on H.R. 12989, we also attached, for the information of the committee, a copy of the Commission's report of January 28, 1966, on S. 2669 as originally introduced.

Without repeating what was contained in the Commission's report on H.R. 12989 and the attachments thereto,<sup>1</sup> we ask that the committee consider them as stating the bases for the Commission's support of the purposes of the subject bill and act.

The Commission endorses, with the possible clarifying amendments and changes hereinafter suggested, S. 2669 as passed by the Senate on March 29, 1966, in preference to H.R. 13666. This preference primarily is because, as so passed, S. 2669 in section 10 provides that within two years after the act's enactment the Secretary of Commerce shall "prescribe by order, and publish in the Federal Register, a uniform quality grading system for motor vehicle tires." Contrasted to this, H.R. 13666 in section 10 thereof, merely provides that the Secretary "is authorized and directed to investigate the feasibility of a uniform quality grading system for motor vehicle tires."

As we stated in the report of January 28, 1966, on S. 2669 as originally introduced, the Commission in January 1965, held three days of public hearings on various aspects of tire marketing. Among the subjects considered was the need for a system of tire grading. The testimony received during our proceedings indicated that a great deal of consumer confusion and deception exists as a result of grade representations and claims currently used in the marketing of tires.

To reiterate what we stated in our report of January 28, 1966, we believe such confusion and deception are the results inherent in the existing situation where over 1100 different tire names are being currently marketed to represent the products of approximately 120 private-labeled marketers and 14 tire manufacturers; where tires often have designations as to different grades which are not based upon either their probable performance or safety value; where the price of the tire has no discernible relation to its grade or safety level and where, under existing industry practices, many of the descriptive terms employed in selling tires have no fixed or definite meaning.

Under date of March 10, 1966, the Commission issued "Proposed Tire Advertising and Labeling Guides," a copy of which, as well as the press release accompanying such issuance, are attached hereto.<sup>2</sup>

In proposed Guide 2 there are set forth certain requirements relating to "designations of grade, line, level or quality" of tires; Guide 3 contains prohibitions as to deceptive designations contained in the advertising or labeling of tires.

The Commission's concern with tire grading is based on more than possible deception or economic loss to the consumer arising from improper or inadequate grade designations and misleading or deceptive labeling or advertising. In our opinion, unlike almost any other commodity, there is a direct relationship between the improper grading and deception, which is brought about by the lack of the consumer being furnished with meaningful standards both as to the grading of tires and their qualities, and the safety and the well-being and perhaps the life of the consumer. Under present conditions, a consumer is forced to purchase tires based upon what is usually totally meaningless advertising claims and representations. Frequently, such claims and representations of one make or type of tire are contradictory to those made for another make or type of tire. From the mass of the contradictory counterclaims made with reference to over 1100 different types or makes of tires, the consumer must select the one which

<sup>1</sup> See p. 43 for report and attachment referred to.

<sup>2</sup> The attachments referred to will be found in the committee files.

he believes best suited for his purposes. Then, having made the selection, upon his judgment rests his safety, as well as that of his family and others. It is because of this, that the Commission feels so strongly that a proper system of grading automobile tires is an absolute necessity.

The aforementioned guides, as is true of all guides issued by the Commission, are, as stated in § 1.55 of the Commission's Rules of Practice, merely a compilation of administrative interpretations of laws administered by the Commission for the use of the Commission's staff and guidance of businessmen in evaluating certain types of practices. A failure to comply with any guide is not, in itself, a violation of laws administered by the Commission.

In a matter as vital and important as tire safety, the Commission is of the opinion, as was stated in the release accompanying the aforementioned guides, that a proper system of tire grading can only be accomplished through enactment of legislation, such as that contained in section 10 and in the other provisions of the act which specify the means and methods whereby "the Secretary would be authorized to enforce such a system."

We do not believe it is necessary, as H.R. 13666 would provide, that the Secretary be required to investigate to determine the feasibility" of a uniform quality grading system for motor vehicle tires. In our opinion, it would not place too burdensome a task upon the Secretary to prescribe such a uniform quality grading system within two years after final enactment of the act.

As Senator Nelson explained, when offering the amendment to S. 2669, which would provide for the Secretary's prescribing the grading system (112 Cong. Rec. 6580 (daily ed. March 29, 1966)):

"The Federal Trade Commission, in issuing its new guidelines for tire advertising and labeling, said there was an urgent need for a system of tire quality grading.

"I cannot believe that the development of a simple process to help the motorist intelligently choose between different qualities of tires is a monumental task. The Secretary of Commerce could and should develop a tire quality grading system within 1 year.

"We should not lead ourselves to believe that we have dealt with our national tire scandal with finality until we have established a system of quality grading for automobile tires."

We also have several suggested amendments and changes, for the consideration of the committee, which we believe would tend to clarify and remove some ambiguities in S. 2669 as passed by the Senate.

In section 2 of the act, it is stated that it has as its purpose "to authorize a study of the feasibility of a quality grading system for tires which will reduce confusion in the marketing of tires." This contradicts section 10 of the act which provides, as we have pointed out, that the Secretary of Commerce shall, within two years, prescribe a "uniform quality grading system for motor vehicle tires." Accordingly, in our opinion, there should be stricken from section 2, lines 9 through 11 the sentence beginning with the word "It" and ending with the word "tires."

In this connection, section 11(a) of the act sets forth several of the matters which the Secretary is to consider in performing the duties assigned to him by the act; section 11(a) (6) provides in carrying out this requirement that there should be included:

"(6) determining the feasibility of a uniform quality grading system for tires;"

We suggest that this be changed to read:

"(6) developing a uniform quality grading system for tires;"

This change would, in our opinion, bring consistency between sections 10 and 11 of the act.

Section 5(a) provides that "Regulations established and issued pursuant to this subsection shall be made on the record after opportunity for an agency hearing." Where rules are required by statute to be made on the record after an opportunity for an agency hearing, the requirements of sections 7 and 8 of the Administrative Procedure Act apply. It is pointed out that sections 7 and 8 of the Administrative Procedure Act provide for adjudicative type of hearings. This raises a question of policy whether adjudicative type of hearings are appropriate in connection with rule making by the Secretary.

Section 12(b) (1) provides that officers and employees designated by the Secretary may, for the purpose of inspecting and testing for compliance, be author-



ized to enter, at reasonable times "any plant, facility, warehouse, or other business establishment or premises where tires are held prior to their sale or delivery." We are of the opinion that "where tires are held" should be changed to read "where tires either on or off motor vehicles are held." Section 12(b)(2) gives the right of inspection of "any motor vehicle assembly plant." H.R. 13666 in section 12(b) provides for the inspection of premises "where tires or motor vehicles are held." If no reference is made in 12(b)(1) to tires which are on motor vehicles, then it is possible this subsection may be construed as applying merely to tires which are off motor vehicles. It is to remove this ambiguity and to make this subsection harmonious with section 12(b)(2) that we suggest this amendment.

We reiterate that the Commission strongly advocates enactment of S. 2669 as passed by the Senate, but also requests the committee to give consideration to the aforementioned suggested changes and amendments.

By direction of the Commission.

PAUL RAND DIXON, *Chairman*.

N.B. Pursuant to regulations, this report was read to the Bureau of the Budget by telephone on April 19, 1966, and on April 20, 1966, the Bureau of the Budget advised that there is no objection to the submission of this report from the standpoint of the Administration's program.

JOSEPH W. SHEA, *Secretary*.

The CHAIRMAN. Our first witness this morning will be our colleague from the State of Missouri, Mrs. Sullivan.

Mrs. Sullivan, if you would, take the stand.

Mrs. Sullivan has been interested in this legislation and has introduced bills.

We will be very happy to hear from you at this time.

#### STATEMENT OF HON. LEONOR K. SULLIVAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MISSOURI

Mrs. SULLIVAN. Thank you, Mr. Chairman and members of the committee.

I am deeply grateful to the chairman and members of this committee for turning your attention once again as a committee to the dangers which confront every American on the highways of this country and to legislate a solution for the frightful harvest of death and crippling injury in traffic accidents.

Countless Americans today owe their lives to legislation handled by this committee in the whole, broad field of health, and to the extent that we now have Federal standards of safety and performance for automotive parts and accessories, particularly seat belts and brake fluid, this committee is responsible.

For a long time, the leadership on the committee in this field was taken by Congressman Kenneth Roberts of Alabama, as chairman of the subcommittee which had jurisdiction. His defeat in 1964 in the startling Republican sweep of Alabama was a blow to all of us who admired the conscientious manner and the effective manner in which he pursued the goal of greater highway safety.

As a matter of fact, the bill for which I testify here this morning was originally drafted by Ken Roberts. He and I had discussed the mounting toll of highway crashes directly or indirectly attributed to defective automobile tires and I asked him to have an effective bill drafted which I could cosponsor if he agreed with me that the question of tire safety was serious enough to warrant this kind of legislation.

When introduced by Mr. Roberts and myself in the 88th Congress, this was the first piece of legislation on tires introduced in either House, I believe, to prohibit the manufacture and sale in interstate commerce of unsafe tires, and to require the Government to establish standards which tire manufacturers must adhere to.

If Congressman Roberts had returned to the 89th Congress, I am sure he would have reintroduced the measure and pushed it vigorously. When I reintroduced it on the opening day of the new Congress, I was proud to put my name to the bill again—and I am proud now to speak for it—but I have always felt that Mr. Roberts' authorship of the measure should be made clear.

Since he and I took this initial step on tires, many, many additional proposals have been introduced in the Congress to assure greater safety on our highways, and to set up Federal programs to protect the public from bad drivers and faulty equipment. I am sure that no matter how much legislation we pass, however, or what standards are set, we will still have traffic accidents and traffic fatalities, for a weapon as powerful as the modern automobile—and it is a weapon under the right circumstances—is not easily controlled by laws.

The youth who drives too fast, the salesman or truck driver who drives long distances without sufficient sleep, the driver—male or female—who daydreams about personal problems while at the wheel, the individual who uses pep pills or other drugs which have dangerous potential on the highways—all confront us when we get in our cars to go across town or across the country.

They are hazard enough for us to contend with. But when you have to gamble, too, with the possibility that a 2- or 3- or 10-ton projectile hurtling in our general direction in the next lane, or across a level median strip, at 60 or more miles an hour may suddenly go out of control because of mechanical deficiencies in the structure of the vehicle, I think we are entitled to more protection.

As I have followed the controversies over the years on automobile design and construction, it is obvious that no automobile which will travel at turnpike speeds can be made completely safe and foolproof under all circumstances.

But what excuse is there—what possible excuse—for permitting on such vehicles tires which will explode or collapse at prolonged high speed, turning the automobile into an unguidable torpedo which could kill any of us who might happen to be on the same highway at that exact moment?

The Federal Trade Commission has spent years investigating the merchandising jungle of new automobile tires—the misleading “quality” designations which trick the customer into buying a tire which cannot possibly be safe over its tread life at speeds at which it will probably be driven. To say to the customer “Buy a better tire; pay more and be safe” often is not the answer, either, for price and quality may not be directly related.

But tire prices would have a greater relationship to tire quality if there were clear-cut Federal standards for tires, and if unsafe tires could not be manufactured and sold, under any circumstances, for use on highway vehicles.

As the members of this committee all know, I have introduced many bills over the past 14 years which have come before this committee dealing with the health and safety of the American people.



Many of those proposals eventually became law, but only after years of consideration, review, discussion, and debate. It is well to have patient and painstaking investigation of the need for legislation before acting on it, but sometimes the needs are so overwhelmingly evident—so compelling—as in this instance, that to delay would be to make Congress, in effect, an accessory to every murder by automobile caused by tires which were unsafe on the day they were made. Let's stop that kind of unnecessary carnage.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Mrs. Sullivan, for taking the time to be with our committee. Well do I remember your late husband serving on this committee and serving it well, being very meticulous in his interest for all statements that came under the jurisdiction of this committee. He was always here and always working hard.

Mrs. SULLIVAN. Thank you, Mr. Chairman. John was very proud of his assignment to this committee. He was proud of the fine hard work done by this committee on very important legislation.

The CHAIRMAN. I want to compliment you for coming here on this very important subject and giving us your views.

Mrs. SULLIVAN. Thank you, Mr. Chairman. I appreciate your courtesy in hearing me.

The CHAIRMAN. Mr. Rogers?

Mr. ROGERS of Texas. Mr. Chairman, I would like to compliment Mrs. Sullivan on her contribution to health and safety in this Nation, and her untiring efforts in that behalf.

Mrs. Sullivan, you have made a long and exhaustive study of this problem regarding automobiles. Have you convinced yourself that it will be impossible to solve this tire situation unless the Federal Government does get into it?

Mrs. SULLIVAN. I just judge from my own personal experience in trying to buy a set of tires. I wasn't attempting to buy the cheapest tire I could buy. I wanted to buy the kind of tire that was best suited to the kind of car I drove, and the way I drove. I never ran into such a jumble of mixed-up descriptions of qualities.

I was told "You pay a good price and you will get a good tire." But the experience I had didn't prove that, because I had to take two of the tires back because they were defective. I am sure the dealer did not knowingly sell me defective tires, but frequently when I would go to my car I would find a flat tire awaiting me. I did not buy a "second" or a low-priced bargain tire; I bought what I thought was top quality.

Mr. ROGERS of Texas. When you buy a new car, do you change the tires on it immediately?

Mrs. SULLIVAN. I had to do it twice.

Mr. ROGERS of Texas. I had one experience where the wheels continued to wiggle, the front wheels, and they told me that that was because of the tires, and the tires weren't warranted, so there wasn't anything I could do about it. I had to buy new tires. There was nothing I could do about it, but it was rather costly.

Mrs. SULLIVAN. I didn't know that we had reached the point that when we bought cars we then had to buy tires separately, but this is what you discover when you find defective tires on a new car.

Mr. ROGERS of Texas. My thought is this: Do you feel that unless the Federal Government does get into this picture, that the people manufacturing tires and the people selling tires and automobiles are not going to correct it themselves?

Mrs. SULLIVAN. I think so, Mr. Rogers. This issue has been talked about a long time. It is my belief that, with the powerful cars we are driving today, especially on the high-speed highways that are being built throughout the country, on which we can drive at almost unlimited speeds for hours at a time, we have to be certain that the quality of the tires on our car is good. I think the only way to do it is to set standards, because the industry just has not done that for us.

Mr. ROGERS of Texas. I thank the gentlewoman.

Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Springer?

Mr. SPRINGER. Mr. Chairman, I know the deep convictions that the distinguished lady from Missouri has on these problems, and I know she has made her own investigation of her own facts. The committee is certainly glad to have that.

I think calling our attention to our colleague who is present, Mr. Roberts, formerly a member of this committee and former chairman of the Subcommittee on Health and Safety, you have done this committee a service. He did serve on this committee for a long time and he had public interest at heart. I do want to pay tribute to Ken Roberts for all those fine things he did when he was chairman of the subcommittee.

Mrs. SULLIVAN. Thank you, Mr. Springer. I am glad you feel as I do about Ken Roberts' fine service to the people of this country.

The CHAIRMAN. Since we have mentioned the former colleague of ours, Mr. Roberts, would you stand up, Ken?

Thank you.

Mr. Moss?

Mr. MOSS. I have no questions, Mr. Chairman. I want to compliment my very distinguished colleague because her appearance here today is a further confirmation of her dedication to the welfare of the consumers of this Nation. It is just what I expected it to be, and it is reassuring to have it.

Mrs. SULLIVAN. Thank you, Mr. Moss. You are very kind.

The CHAIRMAN. Mr. Younger?

Mr. YOUNGER. Thank you, Mr. Chairman.

I, too, want to join in congratulating the distinguished woman from Missouri.

There is one question I have. I have not seen the figures and I wondered if you had, on the percentage of automobile accidents caused by faulty tires. Have you any statistics to substantiate that?

Mrs. SULLIVAN. I don't think I can do that at this time, Mr. Younger. We had some figures when we first introduced this bill several years ago, but I do not have them with me.

Mr. YOUNGER. Could you get those and supply them later for our files?

Mrs. SULLIVAN. I think we could get some information but whether or not we could get a very accurate figure I am not certain. Very often,



the question is whether the tire failure caused the fatal accident or whether the tire or tires failed as a result of the accident. If everyone concerned is dead, there is often no way to be sure just what did cause it.

Mr. YOUNGER. Thank you very much.

The CHAIRMAN. Mr. Rogers?

Mr. ROGERS of Florida. Thank you, Mr. Chairman.

I, too, join in welcoming our distinguished colleague this morning. I share her concern, too, in the matter of tires, from what I have been able to learn from some of the investigations I have made.

I also think it most appropriate that you mentioned Ken Roberts, because when we see others coming into the safety field in a very dramatic way now, some people forget that Ken Roberts is the one who pretty much started the whole congressional interest in this field and established the foundation upon which the others are building now.

It was my privilege to serve with him on the committee where so much of this legislation, as you mentioned, on seat belts, brake fluid, and other matters were really brought into national focus, with results coming about.

I wondered what the gentlelady would think about having a group to be set up within the industry to set standards. For instance, if you had an engineering group that was to set the standards on what tires should be and so forth, do you think this might be a possible approach, to have some self-regulation, like they do on motor oils and so forth, where they must meet certain engineering standards? What would be your reaction to that?

Mrs. SULLIVAN. I think self-regulation is always preferable, if possible. I believe, however, that in this field they have already had a chance to do some self-regulating. But I do believe that a group set up for this purpose, to work in conjunction with the proper agency in the Government, would probably be the best way to go about it.

Mr. ROGERS of Florida. Thank you so much.

Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Nelsen.

Mr. NELSEN. I have no questions, Mr. Chairman. I did enjoy Mrs. Sullivan's statement very much.

The CHAIRMAN. Mr. Pickle.

Mr. PICKLE. No, questions, Mr. Chairman, except to welcome my colleague to our committee.

The CHAIRMAN. Mr. Cunningham.

Mr. CUNNINGHAM. I want to join in welcoming our colleague. I was going to ask the same question I believe Mr. Younger asked as to what statistics there may be as to the number of accidents caused by tires.

Many witnesses talk almost exclusively about tires and the engineering of an automobile. I think we could build a car like a Sherman tank and it wouldn't make any dent in this traffic-safety problem. I was in traffic-safety work professionally for 6 years as manager of the Omaha Chapter of the National Safety Council, and I know there are

many other factors involved in traffic safety. I hope during these hearings we can get into them.

I have a whole list of the major causes of accidents at my fingertips. Of course, I am for building a safe automobile, and we also want safe tires. But I say if you will examine the statistics, it is not the engineering of the automobile that is the major cause of auto accidents. There are many other factors.

We have in traffic-safety work what is called the "Three E's," education, engineering, and enforcement. In education we are doing a good job with radio, television, newspapers, all talking about it. When we read about an accident, that is education.

In the field of engineering we are way behind. I am talking about traffic engineering now. But the weakest link of the three is enforcement. We have done a lot of work, but we have a lot of work to do in these fields.

I think we ought to have a national uniform reporting service. If uniform regulations, to make traffic regulations uniform, among all of the States. So when you drive from here to Missouri you don't go through several States with different types of rules and regulations.

I think we ought to have a national uniform reporting service. If a person's license is revoked in Virginia, he cannot move over to Maryland and drive a car.

These are some of the things I think we have to consider. What part the Federal Government has in this field I am not quite prepared to say. I think we are going to have to work in conjunction with the various States. For example, on a matter of engineering, our traffic lights are way out of date. The green and red, stop and go, lights are too small. If you are in a business district and you have a bunch of neon signs in the background, you can't even tell there is a red or a green light on because they blend in with the neon signs.

When I was in this work full time, we experimented with a smaller light, which is mostly standard, and attached a big black shield in back of the light so that at least it would black out some of these neon signs. I think today those stop and go lights are too small to begin with. They should be three or four times their size, and there should be this background steel plate place in the back of the lights so that you will be able to distinguish these lights from the neon signs.

I notice, for example, too, other things that cause accidents. The things I am speaking of are those things that do cause the majority of accidents. I noticed in recent years when you go to the filling station to get your car filled up with gasoline, it is almost universal that when they clean your windshield they use detergent. If you have driven at night when it is raining, with your wipers going, you have a film in front of your face. I wonder if people are aware of how many accidents are caused by that alone? This film is due to the use of detergents.

So there are many factors. I would hope these hearings would not degenerate to the position where we will only talk about engineering a car and forget these other things.



I will conclude by saying, again, in my opinion you can build a car like a Sherman tank and you will not make a dent in this problem.

Mrs. SULLIVAN. We have to evaluate all of the causes, Mr. Cunningham, and correct those we can reach through legislation. Safe tires are certainly a "must."

The CHAIRMAN. Mr. Murphy?

Mr. MURPHY. I would like to congratulate the gentlewoman on her legislation and recommendations.

Also, Mr. Chairman, this is not the only field of consumer protection that Mrs. Sullivan is vitally interested in. I congratulate her on her activity.

Mrs. SULLIVAN. Thank you, Mr. Murphy. The consumer is my main interest, because what we do in consumer protection helps everyone.

The CHAIRMAN. Mr. Broyhill?

Mr. BROYHILL. No questions.

The CHAIRMAN. Mr. Satterfield?

Mr. SATTERFIELD. No questions.

The CHAIRMAN. Mr. Harvey?

Mr. HARVEY. I would like to welcome Mrs. Sullivan. I have the pleasure of serving with her on the Banking and Currency Committee. It is nice to have you with us this morning.

Mr. CUNNINGHAM. May I ask one further question?

You have spoken about seat belts, Mrs. Sullivan, and I know that Mr. Roberts brought this legislation to a successful conclusion.

I am wondering why interstate buses were not included. School-buses are sometimes in interstate commerce and, of course, most other buses are in interstate commerce.

Mrs. SULLIVAN. Do you mean on seat belts?

Mr. CUNNINGHAM. Yes; to require them to have seat belts like passenger cars.

Mrs. SULLIVAN. All I did was to mention that Mr. Roberts had been instrumental in helping to get the legislation on seat belts passed, as he did so much other automobile safety legislation.

Mr. CUNNINGHAM. I was not familiar with what your activity was in that particular field or that piece of legislation. I have introduced legislation just this past week to require all vehicles manufactured as buses for use in interstate commerce to have seat belts. We have statistics galore that they are needed.

The CHAIRMAN. Mr. Mackay?

Mr. MACKAY. Mr. Chairman, I have no questions, but I would like to say to Mrs. Sullivan that as a newcomer to this Congress and to this committee, I am very much aware of Mrs. Sullivan's contributions and Mr. Roberts' contributions.

I certainly appreciate the work you have done.

Mrs. SULLIVAN. Thank you, Mr. Mackay. It has been the kind of work and effort one can derive a lot of satisfaction from doing.

The CHAIRMAN. Mr. Gilligan?

Mr. GILLIGAN. Thank you, Mr. Chairman.

I have no questions. I would like to welcome Mrs. Sullivan before the committee since I had the privilege of appearing before her committee yesterday.

The CHAIRMAN. Mr. Farnsley?

Mr. FARNSLEY. No questions.

The CHAIRMAN. Mr. Adams?

Mr. ADAMS. I have no questions, Mr. Chairman. I would like to congratulate this young lady for appearing, and thank her for her contribution.

The CHAIRMAN. Mr. Friedel?

Mr. FRIEDEL. Mr. Chairman, it is always a pleasure to hear from our distinguished colleague. Her statement has paid our former colleague, Mr. Ken Roberts, a fine compliment on his work with this committee.

I might say that there are many important things we have found in our studies on safety. For instance, we have found that there are a lot of known safety devices that are not standard equipment but can be purchased as optional equipment. I would like to see a lot of them made standard.

One of the things that I have advocated for a long time which I think is very important, is a rear-window wiper. Think it over. In this part of the country it is very essential, not only in the rain but because we have so much snow.

Mr. ROGERS of Texas. There never was a man who was more dedicated to a rear-windshield wiper than the gentleman from Maryland.

Mr. FRIEDEL. Thank you, Mr. Rogers.

The CHAIRMAN. Mr. Jarman?

Mr. JARMAN. Mr. Chairman, I have no questions. I would like to pay tribute to our colleague, Mrs. Sullivan, for an excellent statement.

The CHAIRMAN. Thank you very kindly, Mrs. Sullivan, for giving us the benefit of your views. You have been very helpful.

Mrs. SULLIVAN. Thank you, Mr. Chairman. The reception you have given me this morning has been overwhelming. It was a pleasure, indeed, to appear before this outstanding committee of the House.

The CHAIRMAN. Our next witness will be a member of this committee who has introduced a bill, and several of our colleagues have introduced the same bill, Representative James Mackay of Georgia.

#### STATEMENT OF HON. JAMES A. MACKAY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF GEORGIA

Mr. MACKAY. Thank you, Mr. Chairman and members of the committee. I appear before our committee this morning to present arguments in support of 29 bills which have been introduced in the House of Representatives which would establish a National Traffic Safety Agency.

I point out that this proposal also has been sponsored by 15 Members of the Senate, making a total of 44 Members of this Congress who favor our approach.

The support for our bill is bipartisan in both the House and in the Senate and the Members represent all parts of the Nation. They come from 28 of the 50 States. A list of them is attached (exhibit A). We should add to that Congressman Murphy, of New York, who has joined as a cosponsor.

(Attachment referred to follows:)



## EXHIBIT A

## CO-SPONSORS OF BILL TO ESTABLISH A NATIONAL TRAFFIC SAFETY AGENCY

## House of Representatives:

Robert T. Ashmore (Democrat, South Carolina) : H.R. 12553.  
 Frances P. Bolton (Republican, Ohio) : H.R. 12921.  
 James C. Corman (Democrat, California) : H.R. 12786.  
 John C. Culver (Democrat, Iowa) : H.R. 12709.  
 Harold D. Donohue (Democrat, Massachusetts) : H.R. 12556.  
 Charles P. Farnsley (Democrat, Kentucky) : H.R. 13267.  
 Sam M. Gibbons (Democrat, Florida) : H.R. 12592.  
 George W. Grider (Democrat, Tennessee) : H.R. 12557.  
 John R. Hansen (Democrat, Iowa) : H.R. 12550.  
 Julia B. Hansen (Democrat, Washington) : H.R. 12558.  
 William D. Hathaway (Democrat, Maine) : H.R. 12554.  
 Paul J. Krebs (Democrat, New Jersey) : H.R. 13475.  
 Rodney D. Love (Democrat, Ohio) : H.R. 12551.  
 Richard D. McCarthy (Democrat, New York) : H.R. 12900.  
 Hervey G. Machen (Democrat, Maryland) : H.R. 12559.  
 James A. Mackay (Democrat, Georgia) : H.R. 12548.  
 Spark M. Matsunaga (Democrat, Hawaii) : H.R. 12560.  
 William E. Minshall (Republican, Ohio) : H.R. 13003.  
 John E. Moss (Democrat, California) : H.R. 12549.  
 Abraham J. Multer (Democrat, New York) : H.R. 12905.  
 Edwin Reinecke (Republican, California) : H.R. 12561.  
 Fernand J. St Germain (Democrat, Rhode Island) : H.R. 12674.  
 William St. Onge (Democrat, Connecticut) : H.R. 12552.  
 William F. Ryan (Democrat, New York) : H.R. 13488.  
 James H. Scheuer (Democrat, New York) : H.R. 13154.  
 Russell Tuten (Democrat, Georgia) : H.R. 12555.  
 J. Irving Whalley (Republican, Pennsylvania) : H.R. 12802.  
 Charles L. Weltner (Democrat, Georgia) : H.R. 12562.

## Senate (S. 2871) :

Gordon Allott (Republican, Colorado).  
 E. L. Bartlett (Democrat, Alaska).  
 Birch Bayh, (Democrat, Indiana).  
 Alan Bible (Democrat, Nevada).  
 Joseph Clark (Democrat, Pennsylvania).  
 Paul Douglas (Democrat, Illinois).  
 Ernest Gruening (Democrat, Alaska).  
 Vance Hartke (Democrat, Indiana).  
 Daniel K. Inouye (Democrat, Hawaii).  
 Gale W. McGee (Democrat, Wyoming).  
 Lee Metcalf (Democrat, Montana).  
 A. S. Mike Monroney (Democrat, Oklahoma).  
 Joseph M. Montoya (Democrat, New Mexico).  
 Frank E. Moss (Democrat, Utah).  
 Claiborne Pell (Democrat, Rhode Island).

Mr. MACKAY. That there should be such widespread support for this new approach to the old problem of what to do about losses from traffic accidents on our streets and highways is in itself significant.

It is significant, in my opinion, because it reflects a widespread feeling inside and outside of the Congress that whatever we may have done to date by public and private means has not sufficed, that we can do more, that we must do more, and that this Congress should act now to curb and reverse the accelerating death, destruction, and disaster which are reported in the daily press as commonplace occurrences.

Mr. Chairman, the legislation currently before this committee is a vital step in the right direction, but it is only the first step if this 89th Congress is going to enact the most significant traffic safety legislation

in the 70-year history of the commercial automobile. And it is toward this end that I have labored.

We do not know all the answers. The bill we are considering all need deep study and review by the committee and by appropriate witnesses. There are many questions that remain unanswered.

Nevertheless, we must not permit this legislation to lapse into the void which has swallowed up so many prior attempts. It is almost inconceivable that for over 40 years programs of national action to combat the traffic accident have been proposed by the executive and legislative branches and the result has been only a few minor laws dealing with limited aspects of the total picture.

There is no longer any doubt in the minds of our citizens or of the Members of this Congress that the carnage on our highways should not be permitted to continue. The National Safety Council reported recently that last year 49,000 American citizens—men, women, and children—were killed as a result of traffic accidents, 1,800,000 received disabling injuries, and direct economic losses totaled \$8.5 billion. Little comfort can be taken from a slight decline in the rate of deaths and injuries when you consider that over 9 million new cars entered our streets and highways last year, and even more will probably be added this year.

The death toll for last December alone was 4,940, up 10 percent from December 1964, and was reported to be the worst single month on record.

In spite of the concern and work on the part of many organizations and individuals there is no reason to believe that these losses will remain steady or will decline without more positive action. After years of effort the President's Committee for Traffic Safety reports that a study of 49 States shows that only 72 percent of what has been called a "minimum" traffic safety program has been attained; and that 782 cities having a population of over 10,000 show an average performance of only 56.1 percent of the minimum program.

Perhaps the most conspicuous reason for our tragic losses is the fact that not in city, State, or Federal Governments are we doing the minimum of what should be done based on our present knowledge.

Mr. Chairman, our present predicament must be considered in the context of the traffic accident, its history, and the nature of our attempts to deal with it.

The traffic accident is perhaps the most unreported and unanalyzed phenomenon in our society. I could tell Mrs. Sullivan not to spend a lot of time looking for statistics on how many accidents are attributable to bad tires because they do not exist.

While we have data gathered, data processed, and computerized subjects from how to run a railroad to how to select a date, we have failed to gather data, process it and make use of computers in getting at the primary causes of traffic accidents. Our investigations, such as they have been, have often been made by individuals without adequate training, and their investigations have been considered in the main by insurance officials, lawyers, and police who seek to determine legal liability, or law violations, not true causation.

Furthermore, the traffic accident is usually an individual occurrence involving only a few people, one, two, or three vehicles and is undra-



matic except for those immediately concerned. These accidents occur around the clock, around the calendar, and around the country. But they are cumulative.

Someone pointed out recently that if we had a major air crash every day in the year, in which 100 lives were lost, the toll would fall far short of our present traffic losses annually.

Next month we hope to have 52,000 men, women, and children in our new Atlanta stadium for the opening of the Atlanta Braves. If some unprecedented catastrophe engulfed these people in violent, sudden, agonizing, and in some instances flaming or lingering death, we would mobilize our Nation as never before. The same result will happen this year on our highways but the mere fact that these deaths do not occur simultaneously and have had "precedents" seems to account for our inaction.

Finally, and perhaps most important, the traffic accident is the result of the interaction of complex factors in a complex environment. When an accident occurs on a busy roadway, the policeman on duty must contend with such problems as medical care for those injured, maintaining the flow of traffic, removal of the debris, and preparation of accident report forms. He has little time to be concerned with the psychological, physical, emotional, engineering, and environmental factors that lead to an accident and little training to aid him in identifying them. Without basic data prepared by highly qualified individuals or even by teams of experts true analysis is not possible.

Traffic accidents have quite a history. Although a few motor vehicles were around in the 19th century, the traffic accident was not much of a factor because there were so few vehicles. The first fatal accident is reported to have occurred in New York City in 1899 when a gentleman helping a lady to get off a streetcar was struck down.

The following tabulation prepared by the Public Health Service shows the steady increase in fatalities although the rate per 100,000 population has declined after reaching a high of 30.8 in 1937:

*Motor vehicle deaths*

	Number	Rate per 100,000 population
1915.....	6,600	5.8
1925.....	21,900	16.8
1935.....	36,369	28.5
1945.....	28,076	21.2
1955.....	38,426	23.4
1965.....	<sup>1</sup> 48,000	24.7

<sup>1</sup> Estimate; this figure from the Public Health Service is about 1,000 less than the National Safety Council figure.

Projection of these figures even with some decline in the rate indicates that by 1975 we may sustain at least 70,000 deaths a year, according to the National Traffic Safety Council. It should be noted that the traffic accident has become the greatest killer of youth between 15 and 25 from all causes including war. And the traffic accident is the fourth killer of Americans from all causes—only heart disease, stroke, and cancer take precedence.

Students of safety say that the traffic accident slipped up on the blind side of the American people and that the appropriate Federal role has been long delayed for the same reasons.

From the beginning rail, ship, and air passengers were obviously traveling on public transportation in interstate commerce. Wrecks were spectacular. Lives were lost while in the custody of others. There were immediate economic consequences to the carriers if speedy action was not taken to prevent recurrences. The Federal Government adopted and enforced rail, ship, and air safety standards. There was public clamor for action. The carriers looked to the economic consequences of inaction and impressive results were obtained.

It is no accident that all deaths in interstate transportation other than traffic deaths last year were less than 4,000, while deaths from traffic accidents pressed toward the 50,000 mark.

Illustrated another way the rate can be shown as follows:

<i>Deaths per 10,000,000,000 vehicle-miles traveled<sup>1</sup></i>	
Train.....	10
Bus.....	10
Air.....	14
Automobile.....	570

<sup>1</sup> Source: National Safety Council.

This history of what Government has done in response to the automobile is interesting. From the beginning rules and regulations for traffic safety were enacted in the village, city, county, or State. Local ordinances regulated speed and later States took a hand in adopting rules of the road, licensing, and road construction.

Not until 1924 when the traffic accident claimed nearly 20,000 lives do we find the National Government taking note of the need for protection from this deadly phenomenon. Then it was that Secretary of Commerce Hoover called the first National Conference on Street and Highway Safety. That Conference was called a "life and death" meeting. In 1926, the Conference was reconvened and it approved a model for a Uniform Vehicle Code. It was hailed as an outstanding achievement, but to this day no State has adopted it in toto.

Twelve years later in 1936, when 38,000 died, Congress took note of the traffic death toll by requesting the Bureau of Public Roads to make a comprehensive report on the various elements of traffic safety. The report touched on the same deficiencies that plague us today—the inadequacy of statistics, of research, of uniformity of laws, the need for skilled investigation.

That report lay dormant for 12 years—until the end of World War II. President Truman then called a Highway Safety Conference which adopted a so-called "action program." Eight years later President Eisenhower called a White House Conference and established a President's Committee for Traffic Safety which has sponsored periodic conferences and published reports, the last of which I would like to submit for the committee to consider. Thirty-seven traffic safety organizations serve on the Advisory Council of the President's Committee.

Many worthwhile voluntary organizations under the leadership of the National Safety Council and various State and local groups have talked and worked for traffic safety. The very existence of so many



groups dedicated to safety belies the charge that the American people are apathetic.

It is more appropriate to say that all of our efforts put together, no matter how favorably evaluated, cannot contradict that the risk of death, injury, disability, or economic loss from the traffic accident is a serious daily exposure for every citizen who ventures forth from his home and we have not achieved an environment as safe as anyone would desire or as safe as many intelligent people believe we can attain.

When then is the Federal role? Thus far it has been limited, poorly defined, inadequate, and inconsistent with the realities of today's world.

In other years traffic accidents could be said to be purely local phenomena. However, with the development of a national system of highways, with the improvement of motor vehicles, and the extension of the driving environment far beyond the village, city, county, or even State, the traffic accident has become a national phenomenon, a national problem, a destructive factor in interstate commerce, and one that clearly deserves the vigorous attention and response of the National Legislature.

Thus, the 89th Congress must decide through legislation what the national response should be, how the Federal role shall be defined by law, and what resources shall be committed to the effort to reduce these giant losses, which in terms of human potential have become incalculable.

An examination of the United States Code and the activities of the Federal Governmentt discloses that there is not now and never has been any clear assignment of responsibility.

On March 3, 1959, Speaker Rayburn received House Document No. 93, entitled "The Federal Role in Highway Safety." Secretary Strauss of the Commerce Department transmitted the report on the investigation and study made to determine what action can be taken by the Federal Government to promote the public welfare by increasing highway safety in the United States, pursuant to section 117 of the Federal-Aid Highway Act of 1956, and under the general authority of section 307 of title 23 of the United States Code entitled "Highways."

In that report there were only two specific proposals for Federal action. Both have been carried out. A driver records clearance center was established and an Interdepartmental Highway Safety Board was established. The latter was set up in response to the statement that:

A pressing need exists for greater national stimulation of official highway safety efforts. The establishment of an effective national focus of leadership, guidance, and a degree of coordination among the many phases of the official highway safety efforts is justified by the large accumulating toll of life and property lost in street and highway accidents.

That was in 1959. The Interdepartmental Board was established in 1960 when the death toll was 38,000. In 1965, the death toll was 49,000. These same pressing needs are with us today.

I point out that the establishment of this Board was by Executive order and not by act of Congress.

The report also states that 16 Federal agencies are charged with highway safety responsibilities but on examination you find that only two departments of Government and one independent agency have done much with regard to the general problem. The others are primarily concerned with safety for internal reasons.

The most explicit responsibility is given the Secretary of Commerce who is directed to assist in carrying out the action program of the President's Committee for Highway Safety and administratively there has been established an Office of Highway Safety in the Bureau of Public Roads. This Office, which is concerned primarily with safety in highway design and construction, has had little visibility.

The Division of Accident Prevention of the Department of Health, Education, and Welfare, received an assignment to work on human factors in traffic safety after the Roberts hearings in 1956. It should be pointed out that former Congressman Kenneth Roberts of this committee conducted definitive hearings on traffic safety in 1956, since which time Congress has not clearly defined the Federal role in traffic safety and during which period more than 350,000 more men, women, and children have died.

Characteristic of what I call an oblique approach to traffic safety we passed the Baldwin amendment to the authorization act for Federal-aid highway funds in which the House of Representatives authorized the Secretary of Commerce to withhold funds if the States did not enact comprehensive traffic safety programs by December 31, 1967. The conference committee watered the amendment down by substituting the word "should" for "must," and by removing the provision under which funds could be withheld.

The 1959 Department of Commerce report to the Congress stated that, "Another particular need lies in the area of standards, specifications, and criteria applicable to the numerous official highway safety functions." Today, this responsibility is vested only in the General Services Administration which can determine standards for federally purchased motor vehicles. We merely hope that the industry will incorporate these standards for all automobiles manufactured.

I realize that the setting of Federal standards is of vital concern to the automobile industry, but it is also of great importance for the purchaser because he cannot hope to judge whether the car he buys is safe. I have proposed that the standards be for performance of the automobile, not for its total design, because this kind of test places the least restriction on the industry and yet fulfills our need.

Perhaps the members of the committee have noted that our bill does not define crimes or establish sanctions for the setting of standards. Considerable study and thought was given to this issue and resolved in favor of leaving the matter to subsequent sessions of Congress. The plain truth is that data are so inadequate that it is not possible or fair to attempt hard judgments without it. We must avoid recriminations and enlist the support of all who have any part in the total picture.

The approach we make is not to look for scapegoats but to recognize that all of us are negligent. The real need is to bring an end to a situation in which thousands of men, women, and children are sacrificial lambs going to slaughter because of our collective social negligence.



It is now apparent that this Congress should fix responsibility and establish national leadership for traffic safety. To accomplish this, it is proposed in 44 bills before the Congress that a National Traffic Safety Agency be established.

The purpose is clearly stated in the bill:

It is, therefore, the purpose of this act to reduce the extent of death, injury, and loss of property resulting from traffic accidents by providing the means for a concerted attack on the problem through the establishment of a National Traffic Safety Agency headed by a highly qualified administrator; the establishment of a National Traffic Safety Center which shall bring together public and private information and research; and through a national program for traffic safety which shall seek to achieve a uniform national traffic safety environment by means of vigorous application of knowledge as to the principal causes of traffic accidents, deaths, and injuries.

What are some of the things the bill would do?

It will clearly assign responsibility and define the Federal role for the first time in the history of the automobile.

It will personify the leadership in this field through the office of a National Traffic Safety Administrator.

I might say that I come to Congress from a State legislature which has just failed to pass 40 traffic safety measures. They sort of got into the hopper in some way and nobody was able to say why these were important. They were sent in by a committee. I understand that the Maryland Legislature had over 60 pieces of safety legislation which are not moving. I believe as a former State legislator that the State legislatures would respond to the idea of uniform traffic laws if there is leadership that states the case. That is why I think the role of the administrator is crucial, because I think he could go before the State legislatures and make the case out very quickly and easily that this be done.

When you consider that in 1926, under the leadership of former President Hoover, a uniform motor vehicle code was recognized then as needed, and that this has not been achieved in the meantime, it suggests that the way we have been going about it is inadequate.

This bill will provide a National Traffic Safety Center which can bring together information which is now scattered, and conduct and contract for research which is long overdue. It can establish the standards, the criteria, the elements of legal and physical uniformity we must build into a safer national traffic environment.

In my district in Georgia is the Communicable Disease Center in which information is pulled from all sources about epidemics, and, of course, traffic accidents are epidemic. Nowhere in America today, or in the Government, publicly or privately, is the information pulled together which is relevant to an attack on this problem. This idea of a National Traffic Safety Center differs somewhat from Senator Ribicoff's and other bills because here you would pull together all the information touching on the traffic accident phenomenon.

I might stress that this bill does not suggest that the Government get into the business of designing automobiles. That is the job for the industry. But the Government can fix safety performance standards. Then you can let free competition work for you in getting these safety performance standards built into automobiles.

It will continue to operate a National Driver's License Registry to protect the properly licensed driver from the driver whose license has been revoked.

There are millions of these revoked licenses in this country and many of those which have been revoked still offer a serious problem to the licensed drivers.

It will provide such an agency whether or not the proposed Department of Transportation becomes a reality this year. We have placed this in the Department of Commerce until such time as a Department of Transportation is created.

It will provide for the definition of safety performance standards for motor vehicles so that the car owner can be on notice concerning many fine points of safety which he could not be expected to grasp as a layman.

It would provide Congress with an agency which can be accountable to it and to the American people, and which can update safety standards as our technology advances and changes.

Finally, it will provide an instrumentality for an attack on the traffic accident problem—something sorely lacking now. The bill does not attempt to set forth details. It sets forth an approach.

It does not take away from the States, it provides State and local officials something they do not now have—a place to turn with certainty and assurance—for recommendations for local action which will fit in with a national pattern.

I would like to mention here that the case for national safety standards is very apparent because the public's concern is so great now that State legislatures are trying to get into the business of fixing safety standards for automobiles. Take tires, for example. As a leader in the industry has said, only chaos would result if you had 50 different sets of standards for vehicles. This really is the new Federal role in terms of law if we have such an agency.

President Johnson is to be commended for his expressed concern in this area and for his Executive action in trying to fix responsibility, administratively, now.

I understand that he will come out with an Executive order right away, beefing up their present traffic safety activity.

But only the Congress can do what should have been done long ago. Unless it takes action, we will continue to be fearful each time we venture forth from our homes that this time we may not return, or a member of our family may not return.

Mr. Chairman, I appreciate the opportunity to appear here today. The challenge of traffic safety is before this Congress and I am proud to serve on the committee that has the major role in the development of this legislation. There is no doubt in my mind that the sooner we activate a National Traffic Safety Agency, the sooner we can expect to have a safer traffic environment.

You will note that I have not said anything about cost. I was not prepared as a layman to suggest the cost. But I think professional experts need to go into the matter of initial cost, because I don't see how you can project elaborate driver training or other programs until you have a lot of work done in advance.

So I am not evading the question of cost; I am saying this is a matter which I think addresses itself to the experts and our committee.

I would like to reserve comment on the President's traffic proposal. It incorporates many ideas contained in these bills. What it lacks, though, as far as I am concerned, is the explicit assignment of ac-



countability and responsibility which is now lacking in the law. It is entirely too permissive.

I hope that out of a synthesis of these several bills we will have a committee bill that will do the job that should be done.

I would like to call to your attention something that was brought to my attention this morning. An inventor in my district came up to my office this morning. I explained to him I was not trying to deal with specific safety proposals but was trying to propose an agency which could evaluate a device such as I have in my hand. He demonstrated this rearview mirror to me. It practically doubles the driver's visibility. So often the fellow that hits you or that you hit is the guy you didn't see.

Here is a man wandering around the streets trying to sell this to individuals or to interest groups in it. If the device is an improvement, the standards that are represented by this rearview mirror ought to be defined either administratively or by law. But this illustration typifies why we are not getting results, it seems to me. Here is a fellow just wandering around with what may be a brilliant, life-saving device which should be on every vehicle.

As I told the inventor, I am a layman, but I would like to see this and countless other safety ideas screened by people who are qualified to evaluate them and judge them.

I am convinced, as I said, that if we activate this agency we are going to build a safer traffic environment for the American people.

Thank you.

The CHAIRMAN. I thank the gentleman from Georgia.

I think you have made a very clear, comprehensive and persuasive argument for your bill. I can see from this that you have given a great deal of time and study to the cause of highway safety. I think you have presented a very fine statement.

I certainly gathered from it, and all the way through, that the time has come for the Congress to take action and not just talk. It is our responsibility to do just that, and now.

Mr. ROGERS?

Mr. ROGERS of Texas. First, let me compliment the gentleman from Georgia on an excellent statement and an excellent presentation.

On page 5 of your statement you have given death tolls per 10 billion miles of traffic. Have you divided this up? Do you have any statistics as to the number of people traveling by each mode of transportation, or was that taken into consideration?

Mr. MACKAY. No, that is why I have not provided any definition of crimes or sanctions. It is scandalous how few statistics we have when we have a society that can gather data on every other facet of our society.

Mr. ROGERS of Texas. It looks to me like the railroads, buses, and airlines would put out a sign saying, "If you don't want to be killed, travel by bus, train, or airline." It may help their business.

Mr. MACKAY. I have said in a number of speeches lately that when my wife leaves me at the Atlanta airport, she doesn't worry about my getting to Washington, I worry about her getting back home on the expressways.

Mr. ROGERS of Texas. Thank you.

The CHAIRMAN. Mr. Younger?

Mr. YOUNGER. I have no questions. I would like to thank my colleague for a fine presentation of a very important problem.

The CHAIRMAN. Mr. Friedel?

Mr. FRIEDEL. Mr. Chairman, I would like to compliment my colleague for a wonderful statement. There is no question that he has done a lot of research and has put in long hours in preparing his statement and his bills.

I want to make an apology for not being one of the cosponsors of a similar bill. Being a member of the House Administration Committee, I have taken the policy of not introducing the same bill that has already been introduced because it saves the Government a lot of money. That is the reason why I didn't cosponsor the bill, though I am with the bill 100 percent.

As a member of the Traffic Safety Committee we made exhaustive studies. We went through the Ford, General Motors, Chrysler, American Motors plants, and they gave us demonstrations of driving automobiles against brick walls, cars colliding together, turning them over, with dummies in the cars, electronic equipment, and we saw that there was a lot of research being done in the industry even back in 1956 and 1957.

Some of the safety devices they developed are standard equipment today. But there are a lot more the industry has that should be standard equipment. We were given a demonstration, I think 2 years ago, by a man who is dedicated to public service. He comes from the State of Maryland and without a penny of cost to the State, gave a traffic demonstration of one of his inventions. This was for any spaceometer that you can buy, at a cost of 25 cents, telling you how many car lengths to stay in back of the car ahead of you.

It is a wonderful thing. Since that demonstration I have always been conscious of tailgating. I have always kept a certain distance back. I think it is a wonderful thing.

As I said earlier, I think the rear window wipers are important safety devices. And there are others.

You have the rear window defrosters but in winter you have snow and ice as well as the window fogging up. But with a window wiper you could see out the rear as well as the front. Anybody driving must watch out the rear as well as the front.

Mr. MACKAY. Thank you, Mr. Friedel. This might be a good place in the record to express my thanks to one of your constituents, Miss Joan Claybrook, a congressional fellow in my office, who contributed much of the thought and information that has gone into this statement.

Mr. FRIEDEL. Thank you.

Mr. ROGERS of Texas (presiding). Mr. Devine.

Mr. DEVINE. Thank you, Mr. Chairman.

You have presented a fine statement of interest to this committee. I wonder if you have also addressed yourself to the area that the automobiles do not drive themselves, but it is primarily the operator who creates the problems, and whether you are, in your legislation, advocating a possible national driver's license or whether this should be retained by the States, and; second, whether or not you have an opinion as to whether the driving of an automobile is a right or privilege.



Mr. MACKAY. I believe it is a right if you can meet reasonable standards, a right to drive an automobile. I don't see how you can call it a privilege. You should be allowed to have the right, until you forfeit it for one reason or another.

But speaking as a longtime State legislator, I would prefer to see the State legislatures enact uniform rules of the road throughout America, and also handle licensing locally.

You have to have a lot of equity in the administration of the licensing law. We have no Federal court system, really, that is possibly suited to make the kind of judgments that you know a local judge has to make in a driver's license situation.

The primary Federal roles I conceive are two: One is in the definition of safety performance standards. My State senator, a very able man, Senator Ben Johnson, said, "I am in complete accord with the idea of uniform laws. But I don't know where to turn to find out what should be uniform."

So it is in the definition of criteria and in leadership in building a national uniform traffic environment that I think this agency would best function.

Mr. DEVINE. Of course, we would probably run into the same problem we have with the uniform negotiable instruments law. The interpretation varies from State to State.

Mr. MACKAY. That is true.

Mr. DEVINE. One of the great problems we have in many States, and this would include my home State of Ohio, is if a person acquired a driver's license a number of years ago when no examination at all was necessary, you can go through the periods of renewal without any reexamination.

I would agree with you that this licensing should be continued on a State level, but we are not going to resolve the traffic safety problems without taking care of the drivers, too.

Mr. MACKAY. I don't think all the wisdom is here in Washington as to what ought to be done. I think the Administrator of this agency would pull together the best professionals from across the country to arrive at, say, a decision as to whether there should be a periodic reexamination of drivers and how often.

This is quite different and more complicated than aviation safety. Here the Federal Government controls every foot of airspace, it controls the craft and the pilot. There are less than 2,000 commercial aircraft in this country. Here we have millions and millions of drivers. So I don't think you can do it just by saying we are going to have a Federal agency. That is the specific reason why I call it a National Traffic Safety Agency, to make that distinction.

Mr. DEVINE. I would certainly agree with you that all the brains are not here in Washington, not only as it relates to this program but many other programs.

Thank you.

Mr. ROGERS of Texas. Mr. Rogers.

Mr. ROGERS of Florida. Thank you, Mr. Chairman.

I think you have presented an excellent statement.

What would be your feeling about setting up standards within the industry, itself?

Mr. MACKAY. I just hope that the automobile industry is going to come across this time in a mature way. As I understand it, they are not in agreement now as to whether there should be any Federal role. The automobile industry is so powerful that I think it can gut this legislation if it sets its mind to it.

My hope is that the industry will recognize the validity of the Federal role in the fixing of criteria and standards. I don't find Ford and General Motors sitting down and praying over the thing together. They are fiercely competitive. I think the public has to be protected here. I hope that we can get a way of fixing standards that will be fair to the industry and protect the consumer.

I was interested that the President has proposed a five-man Transportation Safety Board to determine what the standards shall be. In this bill, of course, we simply say that the Administrator shall fix standards, but, you see, we don't give him any power to penalize anybody. All he can do under this bill is to certify that a vehicle meets specified or recommended standards.

This bill has been criticized as not being a tough bill on the assumption that the industry won't do the right thing unless it is made to do so. I am not willing to accept that conclusion about the automobile industry at this point.

I think they are building some wonderful cars. I have talked to their representatives. They are not hostile to the idea of traffic safety. They have spent quite a bit themselves on the subject. But to be perfectly candid with you, I think it is unlikely that they can get together quickly enough or explicitly enough to get the criteria that we need by voluntary action.

Mr. ROGERS of Florida. I would think probably this does need emphasis being given to it, though I think they should be given credit in some areas, for instance in seat belts.

Mr. MACKAY. Do they deserve the credit or does Congressman Roberts deserve the credit?

Mr. ROGERS of Florida. I think the industry, when this was brought to their attention, along with some of the problems that had developed and what could happen, gave a fairly cooperative effort. I think this might be explored, letting industry contribute people who set standards along with the cooperation, perhaps, of an agency such as you suggest.

Mr. MACKAY. They ought to have a role in it. They know how to build cars and the Government doesn't know how to build cars. I am not approaching this problem as some people have, by attacking the industry. In fact, in my district the industry is wholeheartedly in sympathy with the objectives of this bill.

Mr. ROGERS of Florida. I think overall the industry probably is willing to take the necessary steps to bring about safety in designing of the cars and so forth.

I notice that you do give the authority, though, on page 6, section 9, to take such other actions "as he determines will promote traffic safety in the United States."

That would be given to the Secretary of Commerce. It seems to me that perhaps language like this might authorize him to do anything.

Mr. MACKAY. I certainly wouldn't put that construction on it. I would welcome any limiting language.



I certainly agree with Mr. Cunningham here that the driver is the paramount factor in the situation. One behavioral scientist said to me we have to study why a 17-year-old——

Mr. FRIEDEL. Would the gentleman yield?

Mr. ROGERS of Florida. I don't think he finished his statement.

Mr. MACKAY. I was going to say a behavioral scientist told me we have to study why a 17-year-old foot is so much heavier than the foot of the same individual when he is 27 years old. This is an interesting statement.

You know the row that goes on in every State about driver training, whether it ought to be in the regular school curriculum or ought to be in the summertime conducted by the State patrol. It is a messy argument going on all over America today. When we say that the Secretary of Commerce can do such other things as might contribute to traffic safety, I am suggesting, for instance, that he could convene the sharpest people in this country to see what is the best approach to driver training.

We are not getting enough of our youngsters trained to drive a 300-horsepower vehicle which can be a deadly weapon.

Mr. CUNNINGHAM. Will the gentleman from Florida yield?

Mr. ROGERS of Florida. I yield to the gentleman from Maryland.

Mr. FRIEDEL. I think we all agree that directional signals are a known safety device. In Maryland, I know the taxicabs can buy a car stripped and will not have directional signals on them. Even where we do have them on the cars, there is no penalty or fine if they don't use them. But that is a known safety device and they ought to be standard equipment.

Practically all the cars have them, but in Maryland, for instance, I notice that taxicabs do not all have them.

Mr. MACKAY. Mr. Rogers, the theory of this bill is that we prefer leadership to authority, and if we don't exercise national leadership, we are liable to bypass leadership and go to authority where you would get national licensing.

I believe if you move up to 100,000 people killed annually it will be a very popular issue to come in here and give power to the National Government which many of us think ought to reside in the States.

Mr. ROGERS of Florida. What do you estimate your bill will cost for the grant section? Have you done any thinking on that?

Mr. MACKAY. I am here asking for your help at this point, because I don't see the wisdom of getting into hundreds of millions of dollars in grants-in-aid to the States until the brainwork has been done. I think we can waste \$100 million annually if we do not provide professional leadership by an agency in shaping these programs.

As a matter of fact, this same behavioral scientists said:

There is no evidence yet that driver training actually means anything because a boy or girl who has enough sense or responsibility to take a driver training course, and most of the courses are voluntary, is going to be a prudent driver just because he wants to be a prudent driver.

Mr. ROGERS of Florida. I will agree with you that some action must be taken in the area. I do think we ought to be careful in going into the approach, to make sure that the Federal Government just doesn't dominate every facet of the industry and, as you say, get to the point of licensing every person to drive, which some have proposed.

This has caused me some concern. But I do think that we are called upon, when we have so many deaths and injuries coming from automobile accidents, to take some action.

Thank you.

Mr. ROGERS of Texas. Mr. Keith.

Mr. KEITH. Thank you, Mr. Chairman.

You will recall a few weeks ago we had an executive session and discussed air safety. I think it was agreed that pilot error was a most contributing factor.

Mr. MACKAY. As matter of fact, I had representatives of the Air-line Pilots Association visit my office and say a gross injustice had been done by us in trying a pilot in absentia; they were denied the opportunity to appear before this committee to show that this pilot had a very good record.

So I could not accept your conclusion that pilot error has been determined to be the cause of a tragic crash.

Mr. KEITH. I didn't say it was. I said it was a contributing factor.

Mr. MACKAY. They don't accept that.

Mr. KEITH. Don't you? With reference to the automobiles, what percentage of these deaths would you say are pilot errors?

Mr. MACKAY. There are just no statistics. It is scandalous, as I say, that you can't get adequate data on which you can make hard judgments.

It seems to me that we have to get the data before we can hope to get to the solution to traffic accident problem.

Mr. KEITH. Is it difficult to get statistics with reference to the fact that someone was traveling too fast?

Mr. MACKAY. Yes. You can't even locate the scene on the road in the case of many major accidents. I am a general practicing lawyer. I have handled a certain number of tort cases. In my State we often have undertrained police officers who are called to the scene. They usually try to find out where the car was in relationship to the center line. They are not trained or required to determine true causation, for example, whether the brakes were in proper working order.

We are just incredibly weak in getting at causation. We do a pretty good job of finding out whether the fellow was on one side of the road or the other. But that is why I say we ought not to be heavyhanded with the automobile industry or anybody until we know what we are talking about.

We don't have adequate facts about thousands of accidents that occur in this country each month.

Mr. KEITH. I would think we could take a sample from some States where they do maintain good records of this sort and determine on a ratio basis, we will say, of the 2,000 people killed in Massachusetts over the last 5 years, what percentage of them were driving too fast, for example, or what percentage of them went through a stoplight and so on.

Mr. MACKAY. I would like to have that data. I am for it.

Mr. KEITH. I think there are statistics available in some States.

You didn't discuss, as I recall, the fact of merit rating of insurance policies on this. Did you make a study of that?



Mr. MACKAY. No. Here, again, I have been really surprised that I have not had any representative of the insurance industry visit my office even though I have been talking about traffic safety since last October. But the insurance picture is one of the big factors that need examination.

For example, I did learn this: that in policies for commercial carriers, you really have a contract between the insurer and the insured. The insured must do certain things, must maintain certain standards in his equipment, in his drivers, how many hours they drive.

But if the private vehicle owner wants to get a policy of considerable limits, he calls up his general agent, gets a binder on the phone, is mailed a copy of the policy, is mailed a pretty good-sized bill. If his daughter has a wreck, they notify him they have increased his premium.

But this is one of the big areas where there might be some substantial gains made in just the conduct of the insurance industry in relationship to the private vehicle owner.

Mr. KEITH. Has your study indicated to what extent elderly people were involved as the cause of driving accidents?

Mr. MACKAY. No. Again, we have been unable to develop that data.

Mr. KEITH. How about "mopes"? That is a term used by those who study accidents on the road. A "mope" is someone who drives slowly, as though he were the only person on the road. Usually he is in the middle of the road, driving at about 20 miles an hour. Finally, in desperation, someone goes by him, Inadvertently, he has been the cause of an accident.

In some States police department has authority to make him speed up or move over. You don't know of the term?

Mr. MACKAY. No. Here, again, the dearth of data in the national picture is simply astounding.

Mr. KEITH. I do hope that any legislation this committee works out will include provisions for determining the significance of pilot error. As a former member of the State legislature I know that Massachusetts has had a very good automobile safety law for some time.

We passed a merit rating bill which, had it remained in force, would have required a higher premium for those who had been involved in earlier accidents or traffic violations. The politicians, however, responding to the first few cries from those who had a few points charged against them, repealed the law within 6 months of the time it was enacted.

But I think some light should be shed on the extent of pilot responsibility. Your bill is certainly well documented. We should get data on the entire spectrum of causation. I would be quite surprised if we didn't find that nine-tenths of that 49,000 was pilot error, flying at low altitude.

Mr. MACKAY. Colonel Stapp told me the most interesting statistic I have encountered. He says that about 42 percent of the fatal accidents occur under survivable conditions. Mr. Nader, in his controversial book, talks about a second collision. Your vehicle collides with one object and then the driver or passenger collides with another inside the car and the injury results.

How can you prorate the pilot error, as you call it, and the resulting death or injury of the individual, based on what happens to him after the collision—

Mr. KEITH. But, generally speaking, he was going too fast in the first place if he was bouncing from one object to another.

Mr. MACKAY. I had a close call with my own child, when I was going slowly around a corner, and the door swung open and the child nearly fell to the pavement—is this pilot error?

Mr. KEITH. I don't know. If you have a child in the back seat, you have to be very careful.

Mr. MACKAY. I traded in that day for a two-door car.

Mr. KEITH. Thank you, Mr. Chairman.

Mr. ROGERS of Texas. Mr. Kornegay?

Mr. KORNEGAY. Thank you very much, Mr. Chairman.

I want to congratulate our colleague on a very fine statement. It is obviously the product of a great deal of research, time, and thought. It is a fine contribution to these hearings.

I do want to bring up a point that has already been touched on. That is the fact that in my opinion it is not the nut on the wheel, but the nut behind the wheel, that causes most of our accidents. Until we devise some system for tightening him up, I don't know that we will have any really appreciable improvement in the accident situation.

That statement is made on the basis of the 9 years that I spent as a prosecuting attorney, and the thousands of traffic cases that I tried, all the way from charges of following too closely to some of the worst manslaughter cases.

I do want to say in connection with driver training that in my State of North Carolina we have a statewide program which is in all the schools, and it is necessary for any person when they become 16 years of age to take the course before they can get a license.

It is financed by adding \$1 to the cost of each license plate issued to any citizen in the State. I think it is a very worthwhile program. I don't have the statistics with me today, but I think they are available, that those drivers who had the driver training course have much better records than those who have not had that course.

I want to again thank you so much for a fine statement and say I appreciate the good work you have been doing.

Mr. MACKAY. Thank you very much.

I will say that the North Carolina drivers are not protected by a Georgia situation because we have not yet achieved this driver training, and it seems to me in the interest of the safety of every American citizen that every youngster is trained how to drive a 300-horsepower weapon.

Mr. KORNEGAY. Let me amplify a bit more. I think safety on the highway is also a matter of attitude. I think even more important than the technical knowledge that the students gain in the course. It is also the attitude they gain, the appreciation and courtesies that are instilled in them by these instructors who teach them.

Thank you very much.

Mr. ROGERS of Texas. Mr. Cunningham?

Mr. CUNNINGHAM. Thank you, Mr. Chairman.



I, too, want to say that our colleague has presented us with a very well thought out statement. I will not get into specifics as I did with Congresswoman Sullivan.

I understand from your testimony that we should look at this in a broad way and not get down to specifics at this point.

You mentioned that there have been these various studies beginning with Secretary of Commerce Hoover, and almost every President since then, and yet we make no dent in this problem.

It occurs to me that there is a problem as to just what the Federal Government can or should do in this field. I think the weak link is in the local and State governments, and whether or not we can tread on their toes is to be determined. But this is a weak line because, as I mentioned previously, we have all of these various causes of accidents which do not involve the engineering and construction of an automobile, which are causing these accidents.

I am wondering what type of traffic safety program you, as a former legislator, believe States should adopt so that this carnage on the highways can really be stopped or slowed down.

Mr. MACKAY. There are two things. One is that I do think we can achieve a uniform legal environment. I do think the rules of the road can be the same from Miami to Seattle, Wash., and from Maine to California.

Mr. CUNNINGHAM. I asked that of Mrs. Sullivan, and I think that is rather a simple matter.

Mr. MACKAY. We have not achieved it. Senator Ribicoff wrote a fine article in the Atlantic Monthly called "Harmony on the Highways," in which there is an interesting discussion of the lack of uniformity. I have had taxi drivers here say there is a lack of uniformity here in the Washington metropolitan area.

In the city of Atlanta, for example, there is no uniform rule regarding right turns on a red light. So first we should achieve a uniform legal environment and second work for a uniform physical environment to the extent this can be attained. I realize that overnight you cannot attain a uniform signal or sign situation.

You pointed out the fact that the signs vary a great deal and very often are set in a way that they are not intelligible unless you study the complex of neon signs pretty carefully. The cost of retooling the signs of American would be astronomical. That is why we don't have better signs, I think, just because of the actual physical cost.

But I have had difficulty right here on the high-speed expressways around Metropolitan Washington in apprehending how to turn at Spout Run, for example, when you are new and see the signs for the first time.

Mr. CUNNINGHAM. I use it every day, twice a day.

Mr. MACKAY. I don't want to criticize that sign except to say that we have many newcomers around here and this becomes very important. I think we can vastly improve the uniformity of the physical environment for drivers by uniform markings.

Then on the subject of criteria, I want to give you one illustration about somebody who wasn't a nut behind the wheel and who died a terrible death, a member of my community and church. His wife, his daughter, and his son were all returning with him from vacation. He

was a prudent driver, driving carefully, and he was approached by several automobiles. One of them was a tractor that did not have a trailer attached.

The tractor has an air brake on it. If a driver is not careful, the air pressure can build up so that sudden application of the brakes can make the tractor tumble and actually be thrown out of control because of the power of the brakes.

The tractor driver was negligent, and I think there was an unsafe vehicle here because it seems to me from an engineering standpoint if you are not carrying the heavy load there ought to be some provision for this type of situation.

The cars in front stopped rather suddenly and the driver of the tractor had to choose between possibly throwing his vehicle out of control or pulling left, and he pulled left into the path of my friend, who was a brilliant surgeon.

Mr. KEITH. That is what you would refer to as prevention, to the point that you can approach it. No matter how safe you are or your friend, he has to watch out for the other fellow.

Mr. MACKAY. I think we ought to do everything within reason to protect the man who is not a nut behind the wheel. Two-thirds of the people who die are victims of the negligence of the other person, or due to some mechanical failure.

Here, again, I do not attack the automobile industry, because we have no data. But as I say, it is scandalous that we don't have the data.

Mr. CUNNINGHAM. I notice, sir, on page 5, illustrated another way, you say the rate can be shown as follows: deaths per 10 billion miles traveled, train, bus, automobiles, and so forth, with automobiles at 570. May I have the source of those statistics?

Mr. MACKAY. I will try to furnish you that. These figures were used by Senator Kennedy, or figures similar to these, in one of his speeches. We have obtained some of this from some of the Ribicoff testimony.

Mr. CUNNINGHAM. I was just wondering about the 570. I don't dispute it, but actually, there is no way that anybody can know how many miles all of our automobiles travel. We know how many miles the trains, buses, and airplanes travel because they are regulated carriers, but nobody can weed out the figures as to the number of miles that the Nation's automobiles travel. They can only estimate that.

Mr. MACKAY. I think you have put your finger on the need for such data. I think we ought to have professionals in Government to gather reliable and complete data.

Mr. CUNNINGHAM. There was one thing I wanted to mention in connection, I believe, with Mr. Rogers' (Florida) statements. I don't know any automobile manufacturers, I have no connection with them, but I will say in all honesty and conviction that they build a pretty fine automobile. Someone said that the only reason they put the seat belts on was because the Congress passed the law. That was only for the front seats. But now they are putting them in both the front and back seats.

They are doing that voluntarily. I might say that all the manufacturers of automobiles, at least when I was in this work professionally, in a great majority of cases, furnished, free of charge, all of the



vehicles in our schools throughout the country for driver training. So I don't think they have lagged too much.

I do think every effort should be made to see that the cars are engineered in every way possible to make them safer. But I go back to what I said earlier, and that is the fact that it is the driver, it is the road conditions, and it is the courts that cause most of our problems.

There are many accidents, and we have statistics on this, that are caused by pinpointed items. Here are some things that perhaps automobile manufacturers can approach. If you are smoking a cigarette, you shouldn't throw it out the window. So you take your eyes off the road and snuff it out in the receptacle. Taking your eyes off the road is a major cause of traffic accidents and fatalities. There ought to be some way of developing an ashtray that is right in front of you, perhaps with some kind of a chemical—and I am not an engineer, but they can figure it out—so that you can still watch where you are driving and you can drop it in there and it will go out and you won't worry about burning up your car.

I think there ought to be, and this is optional on some cars, this other item: There are so many changes in speed limits from one place to another, and you have to look up and down, up and down, to see if you are staying within the speed limit. I suggest this that perhaps we ought to consider making it mandatory that there be a gadget on the automobile so that if you want to go 50 miles an hour you set a meter or a timer, and if you go over it, it buzzes. That is optional, I understand, on some vehicles.

There are many things like that. The closest I have ever come to having a serious traffic accident was when I was traveling out in my State on a straight piece of highway, concrete highway. We had had a light snow that morning, about 7 o'clock, and there was a little bit of wet, muddy-type stuff on the road.

I was going in one direction and a big truck was coming from the opposite direction. He didn't have splash guards to cover his wheels and I was just blacked out on my windshield. You see this happen so often when you are following in back of a truck. These trucks are in interstate commerce and I think we ought to consider this item, too.

Finally, I think one of the finest safety features that has been developed in recent years is the new tire. We talked about tires a little while ago. The new tires have studs in them. I bought a pair the winter before this and that is the greatest improvement in traffic safety for winter driving that has come along since the automobile was first built. Yet we have States that will still not allow them. My State of Nebraska did not allow them but now does. Many States do not allow them today.

This type of legislation goes back to the old horse-and-buggy days where they wanted to keep the great big old-fashioned steel-wheel tractors with their cleats off the roads. But Nebraska repealed that law. In Virginia you cannot have them. I am subject to arrest there. If there is anyone here from Virginia who wants to arrest me, I wish they would, because I want to make a test case out of it.

These are some of the things that I think will have some influence on these problems.

I will say that a great deal of this problem lies within the States.

We don't have funds for the proper traffic engineering, we don't have funds for ample police power, and we don't have funds for proper engineering, so there is a great problem in the States.

Over in Arlington, you used Spout Run as an example, and I presume you live there. There you want to go in a certain direction to make a turn and you have big hedges on each side of you, or brush, or other obstacles. We passed a rule in Omaha when I was mayor there that these had to be cut back a certain number of feet. But in Arlington, when you go up to make a turn, you can't see a car coming either way, so you almost have to go halfway into the street you want to turn onto before you can see whether there are any cars coming, so you have all those problems.

I will finish by saying, Mr. Chairman, that I hope that this committee, as we proceed with these hearings, will get the proper people here that can give us the statistics that are causing these accidents, because you cannot pass legislation that is adequate until we get the reasons that cause these various accidents.

All they have to do is get hold of the various police departments and the State safety patrols and others, and I am sure that most of the States keep records as to what in the judgment of the officers cause the accidents.

Mr. ROGERS of Texas. Thank you, Mr. Cunningham.

Mr. Pickle?

Mr. PICKLE. Mr. Chairman, the gentleman from Georgia has made a very interesting statement to the committee today. I would like to address this question to the gentleman:

You keep repeating there are no statistics about what causes the accidents. As a general statement, what would you think would be the percentage of automobile wrecks which have been caused by pilot failure, by driver failure?

Mr. MACKAY. I have seen no statistics on which I could base an answer.

Mr. PICKLE. Would you think it would be 5 percent of them, 10 percent of them? You are very knowledgeable in this.

Mr. MACKAY. No, sir; I am a layman. I am complaining about the fact that as a layman I have to be in here making a case that I think the Federal Government should have made 20 years ago. I can't tell you.

But we had four people killed in Volkswagens in my county in January of this year. One was driving in a hurry to work. He hit a little patch of ice and he took off the road and through the woods and was killed. What caused that? Was it the car? Was it the road condition? Was it pilot error? He wasn't going at any great speed.

I will put driver fault way up there, 75 or 80 percent. But nobody really knows. This of course does not refer to the cause of deaths or injuries.

Mr. PICKLE. I thank the gentleman for that.

I think this morning there has been some indication certainly not intentionally, that most of these accidents have been caused because we didn't have certain standards and the automobiles were not made safely. I will agree with the gentleman from Nebraska that I do not entirely agree with that contention.



Certainly no one can argue with the principle you have advocated in this or any similar measure. I am assuming everybody on this committee and the Congress would want to have that accomplished.

As a practical matter, although I would agree with you that perhaps the best thing we can do right now is just to try to set forth an approach rather than detail, at some point you are going to run squarely into the question of how far we go, how far the Federal Government goes. My question to you in that respect is this, Have you contacted the various State Governors, or highway commission or department of public safety or the State legislatures with respect to your bill or a similar bill? Have you had an expression from a Governor's committee?

Mr. MACKAY. Not officially. I have met with the Council of State Governments and just apprised them of what I was doing.

Mr. PICKLE. I think it would be well to appraise them of the bills before the committee and get some expression. We should have cooperation with the various State legislatures or State agencies. If you don't want the Federal Government coming in and controlling directly, which you say you don't, then we should have close cooperation. I would make that suggestion to them because they have to join hands with us on these measures.

Would you agree?

Mr. MACKAY. If you notice in my statement, I refer to death by committee. I know pretty well how a Governor's office operates. If I write such a letter to the Governor of the State, he is going to send it to the State patrol captain and he is going to send it over to somebody else, with maybe a copy to the local safety council, and the thing will kind of disappear in limbo.

I mentioned my State senator. He said if he knew where to turn he would respond to the need for a uniform traffic environment. That is really the philosophy in back of this bill: to try leadership instead of authority.

Mr. PICKLE. You give an indication that if it was left to the Governors to cooperate, they would kill the measure.

Mr. MACKAY. Not kill it.

Mr. PICKLE. I don't agree with that. I think we must bring the Governors of the various States into this proposition. Unless we do it on a wholesome basis, we will have foot-dragging and we will have lack of enforcement. At some point you have to have that cooperation.

I just say we better make these contacts. I don't think a Governor would appreciate the fact that you indicate they would "file 13" your measure.

Mr. MACKAY. No; I think the Governors would appreciate the fact that they have been summoned to Washington since 1924 to sit in conferences and pass resolutions and then go home. And when they get home they have a report from a committee, or from a conference, and that is it.

The idea of this bill is to have an agent to which the Governor can turn with some feeling that the agency has a mandate from the Congress to speak with authority about the elements which make up the national traffic environment.

Mr. PICKLE. I would assure the gentleman again that I am not arguing this point with you and I don't want to prolong it. But the

fact we haven't passed legislation is basically no more fault of the Governors of the various States than it is the Congress. It is a matter we must work together on. I make the suggestion it is well that we contact them, it is well that we bring into another conference the automobile makers, and then we can sit down and make some analysis about the practical aspects of this.

Mr. MACKAY. I agree 100 percent with what you say, and I think we will be better able to write a bill on the House side because recrimination has been underway on the Senate side. That is not the philosophy of this bill. We are trying to enlist the support of everybody in the country on this issue.

Mr. ROGERS of Florida. Would the gentleman yield?

Mr. PICKLE. Yes.

Mr. ROGERS of Florida. When did you introduce your bill?

Mr. MACKAY. February 3.

Mr. ROGERS of Florida. Have you been investigated by any law firms or detectives or anything, your private life?

Mr. MACKAY. No; because this has been called a toothless bill. But you know Congress can raise teeth very fast.

Mr. ROGERS of Florida. Have you read the book?

Mr. MACKAY. Yes.

Mr. ROGERS of Florida. Thank you.

Mr. PICKLE. Mr. Chairman, I would make this last observation, that the objectives the gentleman wants to achieve here are certainly commendable and we must try to find an answer for it.

At some point, however, once we set up this machinery, this is just a beginning, we have to finally pass judgment on how fast can a man drive. We have to pass judgment on if he causes a wreck will we take his license away.

We have to establish harsh measures of enforcement before we will ever find real traffic safety.

The CHAIRMAN. Mr. Watson.

Mr. WATSON. Thank you, Mr. Chairman.

I should like to join with the others in commending our colleague for a well thought-out statement.

I was just wondering, since virtually every State has a traffic safety council, and we have had this departmental highway safety board since 1960, and you still say there is no expertise in this particular field, what makes you believe that just having another super agency would bring about the expertise and the desired results?

Mr. MACKAY. It is this, that we need a point of reference nationally. We have a national theater, you might say, or national driving environment. We have some regional problems.

I will again cite my State senator who is a pretty well-informed lawyer-legislator, and he said:

I agree with the idea of uniform traffic environment. Where do we go to find out what those elements are that should be in that environment?

That is why I say this bill will personify it when you have an administrator. We had General McKee before us talking about the 727. I felt General McKee was a man who had a mandate from and an obligation to Congress to give us the answers. We don't now have any such assignment of responsibility in the whole National Government.



I am sure there are some very able men. In fact, when we establish the office of National Traffic Administrator, we will go back to the States and find uncommonly capable men in the State programs. But it is a point of reference that this bill seeks to establish.

Mr. WATSON. As I recall a moment ago, when Mr. Keith asked you about whether or not you would credit these aircraft wrecks to pilot error, you differed with him because the Pilot's Association came in and said they had not had their day in court, and General McKee pretty well said it was the operator's error.

Mr. MACKAY. No; I understood their testimony to be that their investigation had not been completed, that in all testing of this aircraft they had not been able to determine any mechanical reason to explain this accident, and, therefore, by the process of elimination this would suggest pilot error.

I don't think he stated a conclusion.

Mr. Chairman, did you understand that he did?

The CHAIRMAN. I was just going to ask the gentleman to yield because we are at this time discussing things that were said in an executive session, and this is not the proper place to do that.

Mr. MACKAY. Thank you.

Mr. WATSON. Of course the record will speak for itself, but now we'll get back to the automobiles.

Do you not agree we have been talking about safety, studying it and having conferences and so forth too long, that now is the time to get down to the meat of the coconut and realize it is primarily the negligence of the operator?

You said on page 8 of your statement that we are not going to look for scapegoats but recognize that all of us are negligent.

Mr. MACKAY. Yes.

Mr. WATSON. If we are going to make any dent in this mounting increase of highway deaths and wrecks we have to put some teeth into the laws and have the courts enforce those provisions in the matter of prosecuting reckless and negligent drivers. Don't you believe that is it?

Mr. MACKAY. I think that is certainly true. We found out where there is rigid enforcement, you reduce loss of life.

Mr. WATSON. Yes.

I would agree with the other gentlemen who have commented about the efforts of the automobile manufacturers and their general interest in mankind which compels them to build as safe an automobile as possible. But I would just make this statement in passing: I have been concerned, as you, about this particular problem, and I have attended lectures and have seen various dramatic pictures of wrecks where people have been killed. They have impressed me. I have left the meeting room with a determination to drive a little slower which would last about 10 miles and I would forget about it.

I wrote to a major automobile manufacturer some time ago and suggested they might put a little reminder on the dash of an automobile that bad driving kills, just a cautionary reminder to the driver. I think it might have a salutary effect on the driver in reminding him that an automobile is a dangerous instrumentality.

As of this time I have received very little response from the automobile manufacturers. Perhaps I am trying to overly simplify the

thing, but I think we have to remind the driver that wrecks kill. I think it would be a very simple proposition to have such an item.

Mr. MACKAY. If you will notice, Mr. Watson, I called for a traffic agency, not a traffic administration. I think every driver is a principal and this agency would be the agent. I would like to have your thoughts and the thoughts of everyone as to how we could build a safer driving environment, screened by a qualified administrator in this Agency, with his associates.

I flew up here at 4:10 a.m. this morning in a jet. There are 47,000 people in the FAA watching over my safety. I was talking last night in a meeting in Atlanta about the Bureau of Public Roads. They have a very small staff in the whole Southeast and no one has a portfolio of safety just in that area. The least we could do, it seems to me, is to beef up the safety functions. But someone has said that no area of our life is marked with more fetishes. Everyone has a pet notion about how you can strengthen safety. A lot of them are good pet notions, so the more we can pull these together, have them screened, evaluated and put to work for our safety, than I think the more we can extend the chances of living in this dangerous environment.

Mr. WATSON. Thank you very much.

The CHAIRMAN. Mr. Gilligan.

Mr. GILLIGAN. Mr. Chairman, I have no questions, but I did want to join my colleagues in commending the gentleman from Georgia for his very enlightening testimony, and for the lucid and persuasive way in which he has answered the questions from the committee.

Mr. MACKAY. Thank you.

The CHAIRMAN. Mr. Farnsley.

Mr. FARNSELEY. Thank you, Mr. Chairman.

As you know, Mr. Mackay, I have submitted a duplicate. I have a noncontroversial, nonracriminatory way of cutting down traffic accidents one-third. It has been proven that it has been done, and every time it has been done it has worked. I have spent most of my stationery money buying copies of it.

If you go by my office, pick one up. I have sent them out to mayors and chiefs of police.

This will give you a dividend because it will cut delinquency and crime by half. It is just putting in street lights. As far as auto safety is concerned, street light standards are set. The Association of Electrical Engineers has set them.

It always cuts accidents one-third. There are so many more accidents at night. It helps even if the driver is wrong.

Also, it would cut delinquency and crime in half. In Washington the police can't go out without a dog or else the dogs can't go out without police. I don't know.

We could light Washington for less money if they wouldn't insist on putting in lights that were designed in the year I was born, 1907. I don't think they are doing it for that reason.

They say this is the 1923 model. It wasn't a good light when it was designed, and it still is not pretty. But they won't put them in alleys because they say there are not enough people in alleys. Of course, that is where people run when they have robbed and raped.

Well, I have been making a speech on your time. Thank you.



The CHAIRMAN. Mr. Adams?

Mr. ADAMS. I have no questions, Mr. Chairman. This has been an excellent presentation.

The CHAIRMAN. I wish to thank our colleague and member of this committee, Mr. Mackay, for a fine presentation.

At this time, we will hear from Mr. Bennett of Florida.

**STATEMENT OF HON. CHARLES E. BENNETT, A REPRESENTATIVE  
IN CONGRESS FROM THE STATE OF FLORIDA**

Mr. BENNETT. I would like to say that I want to congratulate the committee on the work it is doing, and I appreciate this opportunity. I hope you will come out with a piece of legislation that will be instructive in this field.

I have been introducing legislation in this field since 1957. I am deeply interested in it.

I appreciate the opportunity to be here today because I believe this is a matter of the greatest national importance. Since 1957 I have sponsored legislation to require certain safety standards for all motor vehicles sold in interstate commerce, and I presently have two bills before the House, H.R. 414 and H.R. 9303, which would establish safety standards for certain automobile equipment, and require that equipment on all automobiles sold in interstate commerce.

Notwithstanding the fact that over 1.5 million Americans have died in automobile accidents since 1899, the Congress has taken very little affirmative action toward curbing the rapidly rising number of automobile accidents. Establishment of manufacturing standards for seat belts, and the requirement of certain safety devices on vehicles purchased by the Federal Government was a good beginning, but little more, because last year again another record was set when more than 50,000 persons were killed in automobile accidents, 2 million persons injured, and \$3 billion worth of property damaged.

The U.S. Public Health Service Accident Prevention Bureau recently advised that 43 percent of those persons killed in automobile accidents last year died because their vehicle was not mechanically safe. What is particularly tragic about this fact is that 22,000 persons might be alive today if a little greater effort had been made to keep these unsafe vehicles off the public highways.

We who serve in the Congress have a much greater responsibility in this since we are duty bound by the Constitution to provide for the general welfare of the Nation. I personally cannot think of many things more beneficial to the Nation's general welfare than this committee reporting to the House legislation designed to end the needless horrible yearly death of 22,000 Americans.

President Johnson has said "the people of America deserve an aggressive highway safety program." I hope your committee will take the leadership in establishing such a program by reporting legislation to establish automobile safety standards and requiring the use of certain safety devices on all automobiles sold in interstate commerce, perhaps along the lines of the two bills I have proposed. Most important however, is that the Congress act now, for every month we put off coming to grips with this problem another 1,800 Americans will die in unsafe motor vehicles.

The CHAIRMAN. Unless there are some questions, I would like to compliment the gentleman from Florida for his patience and the brevity of his remarks.

Mr. ROGERS of Florida. I want to commend my colleague from Florida for his interest in these matters. We have gone over these matters. I know his suggestions will be most helpful to the committee.

Mr. BENNETT. Thank you very much.

The CHAIRMAN. Congressman Horton, would you take the stand, please?

**STATEMENT OF HON. FRANK HORTON, A REPRESENTATIVE IN  
CONGRESS FROM THE STATE OF NEW YORK**

Mr. HORTON. Mr. Chairman, with your permission, I will enter my statement into the record. I appear on behalf of H.R. 11891, which is a bill to advance tire safety.

I also would like to ask permission of the chairman of the committee to file a letter which I received from the president of the Automobile Club of Rochester, Inc., which is in my congressional district, the 36th District of New York, supporting H.R. 11891.

This letter was addressed to the executive vice president of the American Automobile Association.

The CHAIRMAN. Without objection, that may be done.

Mr. HORTON. I would also, Mr. Chairman, like to ask to include a letter from Joseph Kelner, president of the American Trial Lawyers Association, dated February 15, 1966, supporting this legislation.

The CHAIRMAN. Without objection, that may be done.

Mr. HORTON. I would also like to take this opportunity to express my support for this bill and other bills in this field, and commend the chairman of the committee and the committee for looking into this matter of traffic safety.

I would like to relate two personal experiences which I have had which I think bear on this matter. There was some discussion about pilot and operator negligence. I bought a new automobile a couple of years ago and drove it from my home district to Washington. Of course, I am not an expert, I didn't have it checked to make sure everything was all right. I noticed some wobbling in the wheel and difficulty in guiding. I stopped twice en route to Washington and was told it was a matter of improper wheel alinement.

When I arrived in Washington I had it checked and was told that one of the pins in the steering wheel had not been properly set. They said I was very fortunate that I didn't have some difficulty driving down. Of course, they corrected it.

Also, with another automobile that I bought subsequent to that I had new tires on it, of course, and I didn't check the tires. But driving down and then going back put about 1,500 miles on the car. I had a flat and I took it in. They told me I should have had different tires. They replaced all the tires.

Subsequently to that I had difficulty with the tires and I took them in and they told me I had the wrong ply on the tires. This is one of the reasons why I am interested in this field, in addition to the other



reasons stated by other members who the committee has heard and who will be here.

Thank you, Mr. Chairman.

The CHAIRMAN. We thank you for coming. Your statement is of benefit to the committee, and also the two references you made to safety which have occurred to you. I am sure it can be multiplied thousands of times across the land.

The material that you wanted inserted into the record will be inserted into the record at this point.

(Mr. Horton's prepared statement and documents referred to follow:)

STATEMENT OF HON. FRANK HORTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

I am grateful for this opportunity to speak on behalf of my bill, H.R. 11891, and other related bills designed to advance tire safety on America's highways. As you know, there has fortunately been an increasing amount of attention to this vital matter of highway safety. The Federal Trade Commission held hearings in January 1965 on various aspects of tire marketing, including the need for minimum safety standards. The Senate Commerce Committee held several days of hearings last year which began to arouse the public's concern for the need for tire safety legislation. As I remarked when I introduced my bill in January of this year, "These hearings made clearer than ever before the utterly chaotic situation prevailing with respect to the grades of automobile tires, with the inevitable consequence that the buyer enters the market arena with no way to make sound judgments as to the tires he should buy. And the purchase of these tires is in a most literal sense a matter of life and death." Unfortunately these hearings did not get the full publicity they deserved.

Now this year we are getting more and more support for this legislation. On January 28 the chairman of the Federal Trade Commission, Paul Rand Dixon, indicated that the Commission "reiterates its support of the objectives and purposes of S. 2669, which is identical to my proposal, and unequivocally supports its enactment." Mr. Dixon's cogent statement included the remark that, "the need for minimum safety standards for automotive tires is now beyond question" and that "the present industry standards are inadequate for that purpose." This bill, he states, will "go a long way in providing a solution to both the safety and the grade problems which hearings and our study demonstrated exist in the marketing of automobile tires."

Now most important of all, we have the explicit endorsement of the President in his transportation message to the Congress on March 2. In that message he wrote, and I endorse every word:

"I urge the Congress to act speedily and favorably on S. 2669, a bill establishing safety standards for motor vehicle tires sold or shipped in interstate commerce.

"Most tires sold to American drivers are produced and properly tested by reputable companies. Nevertheless, evidence has shown that increasing numbers of inferior tires are being sold to unwitting customers throughout the country. The dangers such tires hold for high-speed automobiles and their occupants are obvious.

"S. 2669, provides that the Secretary of Commerce shall establish, and publish in the Federal Register, interim minimum safety standards for tires. The Secretary would be required to review these standards 2 years from the enactment of the bill, and to revise them where necessary. A research and development program under his direction would improve the minimum standards for new tires, and develop such standards for retreaded tires.

"Our driving public deserves the prompt passage of S. 2669, and the protection it will afford them from accidents caused by tire failures."

In addition to the provisions of this bill, as outlined by the President, it would prohibit the following acts: (1) manufacture or sale of noncomplying tires; (2) selling new cars with tires that do not comply with the tire load standard to be promulgated within two years, and (3) failure to permit inspection.

I am of course gratified that the publicity which has been given to the matter of tire safety during the past year has not gone completely unheeded by auto-

mobile and rubber tire manufacturers. It is a matter of satisfaction to all of us that the Vehicle Safety Equipment Commission recently revised its tire standards, effective October 10, 1965 and that the Rubber Manufacturers Association raised its standards effective the beginning of this year. According to Ross R. Ormsby, President of the Rubber Manufacturers Association, tires produced under the new standards offer "assurance that they will meet or exceed the minimum safety margins demanded for the high speed, long-distance driving conditions normal on superhighways." These new minimum laboratory test performance and dimensional standards are now being certified to by all United States tire manufacturers. Whether these new standards are strict enough must be tested by experts. In any case a bewildering variety of names and grades of tires remains, with each company having its own grading system. There is the further difficulty that as yet there is no way to prevent an automobile manufacturer from equipping some of his models with inadequate tires to trim costs.

Therefore responsible manufacturers of both tires and automobiles should be among the first to join the ranks of those sponsoring and supporting tire safety legislation who want to assure the public that it will always get the uniformly high quality tires which the industry has already demonstrated it can produce.

With ever more traffic on our high speed Interstate Highway System and other major arterial roads, the need becomes more urgent by the hour for standards which will assure every motorist that his tires will in fact be safe under present driving conditions as well as under the new conditions we can anticipate as the Interstate Highway System reaches completion.

Our accident rate is a national catastrophe. As I said in introducing my bill, "We are being callous and craven for every day in which we delay action which will cut down on this traffic toll. My measure should do much to halt the rise in the senseless slaughter on our Nation's highways."

I am therefore pleased to join Senator Magnuson in sponsoring this urgent legislation, legislation which has the full backing of the President, the Federal Trade Commission, the Department of Commerce, the American Automobile Association, the American Trial Lawyers Association, and most of the 3,500 members of the National Tire Dealers and Retreaders Association. I am confident it will receive the support of this committee and of the Congress as well.

---

AUTOMOBILE CLUB OF ROCHESTER, INC.,  
Rochester, N.Y., February 15, 1966.

Mr. GEORGE F. KACHLEIN, Jr.,  
Executive Vice President,  
American Automobile Association,  
Washington, D.C.

DEAR MR. KACHLEIN: The Board of Directors of the Automobile Club of Rochester enthusiastically support H.R. 11891, the Tire Safety Act, introduced by Congressman Frank Horton, 36th District of New York.

No safety performance standards for new tires have ever been established or at least clearly stated, and unsafe tires are being sold to thousands of unsuspecting motorists.

It is our hope that this bill be given the support of all our Clubs, as its adoption is certain to have a great effect on the reduction of traffic accidents and fatalities.

Very truly yours,

ALEXANDER M. BEEBEE, President.

---

AMERICAN TRIAL LAWYERS ASSOCIATION,  
New York, N.Y., February 15, 1966.

Congressman FRANK HORTON,  
Longworth House Office Building,  
Washington, D.C.

DEAR CONGRESSMAN HORTON: I received your material, including a copy of H.R. 11891. This is a magnificent bill and reflects great credit upon you and your effort to help cope with this awful problem of slaughter on the highways.

We are ready to support by all possible means this valuable, life-saving bill which you have now introduced for enactment by the Congress.



We are most grateful to you for your complimentary references in your broadcast to the American Trial Lawyers Association.

With every good wish for your success in this excellent venture for the prevention of deaths and crippling injuries, I am,

Cordially yours,

JOSEPH KELNER, *President.*

The CHAIRMAN. Are there any questions from any member of the committee?

If not, thank you. The committee will stand adjourned until 10 o'clock in the morning.

(Whereupon, at 12:05 p.m., the committee recessed, to reconvene at 10 a.m., Wednesday, March 16, 1966.)

The first of these is the fact that the majority of the population of the United States is now living in urban areas. This is a result of the process of urbanization, which has been going on since the beginning of the nineteenth century. The second is the fact that the majority of the population is now living in the United States. This is a result of the process of immigration, which has been going on since the beginning of the nineteenth century.

The third is the fact that the majority of the population is now living in the United States. This is a result of the process of immigration, which has been going on since the beginning of the nineteenth century. The fourth is the fact that the majority of the population is now living in the United States. This is a result of the process of immigration, which has been going on since the beginning of the nineteenth century.



## TRAFFIC SAFETY

---

WEDNESDAY, MARCH 16, 1966

HOUSE OF REPRESENTATIVES,  
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,  
*Washington, D.C.*

The committee met at 10 a.m., pursuant to call, in room 2123, Rayburn House Office Building, Hon. Harley O. Staggers (chairman) presiding.

The CHAIRMAN. The committee will come to order.

Mr. Marshall, you will be the first to testify this morning.

Yesterday we started hearings on traffic safety. The first witness this morning, in a continuation of these hearings, is Mr. Robert Marshall, associate executive secretary, National Commission on Safety Education, National Education Association.

Mr. Marshall, we are glad to have you with us. You may proceed with your testimony.

**STATEMENT OF ROBERT L. MARSHALL, ASSOCIATE EXECUTIVE  
SECRETARY, NATIONAL COMMISSION ON SAFETY EDUCATION,  
NATIONAL EDUCATION ASSOCIATION OF THE UNITED STATES**

Mr. MARSHALL. Thank you, Mr. Chairman.

Mr. Chairman and members of the committee, I am Robert L. Marshall, of Washington, D.C., associate executive secretary of the National Commission on Safety Education of the National Education Association of the United States.

Dr. Key, who was to make this statement, has a virus attack and is unable to be present.

The National Commission on Safety Education is a service unit within the structure of the National Education Association, which has a membership of nearly 1 million professional educators. The NEA has a long history of interest and activity in the general field of safety education, a field which includes traffic safety education and, more specifically, driver education.

Because of the extreme seriousness of the Nation's highway traffic accident problem and the growing need for the Federal Government to help reduce these tragic accidents, I should like to suggest that education has an important role to play.

Along with measures relating to highways and vehicles, traffic law enforcement, motor vehicle inspection, driver licensing, and uniformity in both traffic laws and traffic control devices, I would urge provisions to improve and extend driver education throughout the Nation. Before suggesting specific ways in which the Congress could help do this, let me mention a few highlights about driver education.

The first driver education courses were initiated in high schools about 30 years ago.

Today nearly 13,000 high schools offer some type of driver education.

This year about 1½ million boys and girls are enrolled in high school driver education courses.

About 30 State legislatures have passed special bills and appropriated funds in support of high school driver education courses.

Certification requirements for driver education teachers in the various States range from one or two courses in the field to a minor in safety education.

More than 30 studies have been made over the past 15 years to determine the value of driver education. Granting the extreme difficulties in controlling the complex variables in such research, nearly all of the studies have shown that driver education pays handsome dividends in fewer accidents, as well as in lower insurance premiums.

As you might expect, these studies have been criticized for being poorly designed and having various other inadequacies.

On this question, I am satisfied that our substantial commitment to good education in this Nation is as sound for driver education as it is for science, mathematics, foreign languages, and many other subject fields.

I mentioned that 1½ million boys and girls are taking driver education this year. However, another 1½ million each year are not receiving this valuable instruction.

Good driver education does more—much more—than help a beginner to obtain a driver's license. It gives him the knowledge he needs about roads, cars, laws, himself as a driver, and a pedestrian, other people as drivers and pedestrians. It helps him develop poise and confidence at the wheel, both for normal driving and for anticipating and staying out of emergency situations.

Let me add, Mr. Chairman, this one additional point: It stimulates him to appreciate and to support the efforts of official agencies that are charged with maintaining a safe and efficient highway transportation system.

The latter is all important. It is likely that the field of motor vehicle transportation will undergo a considerable amount of change in the near future, and, gentlemen, I would ask of what value is it to alter specific aspects of the engineering-enforcement approach without proper interpretation of the modification to the driving public? Through driver education, a future generation can understand, appreciate, and actively support key components of an effective traffic accident prevention program. Driver education therefore should be considered a foundation for short-range and long-range improvement of traffic conditions.

The increasing volume of proposed traffic safety legislation being introduced at the State and National levels indicates that legislative leaders are aware of a need for realistic treatment of the problem. An examination of the content shows that many officials recognize the importance of education in the overall program for the future.

For an example of this, one can cite the White House message on transportation made on March 2, 1966, in which the term "driver edu-



cation" was used several times. It is interesting to note, however, that the administration bills do not make specific reference to the subject.

My strong feeling is that if we recognize the importance of driver education, the subject deserves specific mention in legislation along the lines recommended in this presentation.

There are four specific ways in which the Congress could help to improve and extend the benefits of driver education. These things could be done by separate bills or by amending bills already introduced in the present session.

First: Provide funds to make driver education a reality for all eligible boys and girls in all States of the United States. Time is passing. Every beginning driver who obtains a license without the benefit of a good driver education course takes to the road with inadequate preparation for a lifetime of safe driving. Putting 1½ million new drivers on the road each year with inadequate preparation merely delays by that much our facing up to what should have been done years ago. The toll from further inaction can only be continuing tragedy.

Second: Provide funds for research aimed at the improvement of instruction. In driver education, as in other subject areas, ways need to be found to improve the selection and preparation of teachers, to develop better methods and materials of instruction, and to find more efficient patterns of program organization. Doing these things is difficult and expensive. They are not likely to be done fast enough to meet the present need unless adequate support is forthcoming for careful experimentation and a great deal of it.

Third: Provide funds to help assure improved preparation of teachers of driver and traffic safety education. Funds could be provided to the States on a matching basis and administered through State education agencies to help build up teacher preparation programs, or funds could be made available directly to institutions of higher education which can qualify as centers for teacher preparation in this field, or both methods could be used.

Better preparation of high school teachers is a "must" if instruction in driver and traffic safety education is to be improved. Closely related is the need for seminars and other kinds of programs to help college professors in this field increase their professional competence.

Fourth: Provide funds for State-level supervision of driver education. This would develop the feeling of obligation by State departments of education to furnish the realistic leadership that local school systems need for improving driver education.

In conclusion, may I say that there is ample precedent for Federal funding for the foregoing specific suggestions to improve and extend driver education.

Mr. Chairman, I wish to thank you for this opportunity to bring before your committee what we believe are ways in which the Federal Government can and should share with State and local school systems in order to improve and extend good driver education to all eligible boys and girls.

Finally, the NEA National Commission on Safety Education staff stands ready to assist in every way at the request of this committee.

Thank you very much.

The CHAIRMAN. Mr. Marshall, we appreciate your coming and giving us the benefit of your views. I think they are very timely and very important.

I have one or two questions I would like to ask you.

You mentioned the fact that 1½ million drivers are being trained each year.

Mr. MARSHALL. Yes, sir.

The CHAIRMAN. And 1½ million other high school students are not trained?

Mr. MARSHALL. Yes, sir.

The CHAIRMAN. So about half of those who graduate each year are being trained?

Mr. MARSHALL. Yes, sir; between 47 and 50 percent are receiving driver education in high schools; that is, of the eligible students.

The CHAIRMAN. In the teaching of driving to these students, are they given any instruction about the car, about its workings, some things that might happen to it, what might happen if it is defective, and so forth?

Mr. MARSHALL. Yes, sir; this is part of classroom instruction. Of course, there is an extensive body of knowledge in the program, textbooks, curricula, and so forth. But all the things that make up the traffic safety program are covered. Maintenance and operation of the motor vehicle are a part of the course.

The CHAIRMAN. Probably that could be improved. Would you agree that students should know more about the workings of the car, what to do if something happens, and what to do in an emergency?

Mr. MARSHALL. Yes, sir; emergency situations, breaking down on the freeways, the Interstate Highway System, these things are taught and stressed in good high school driver education courses.

The CHAIRMAN. For instance, I know that a lot of people do not know how to detect carbon monoxide getting into a car, what to do, or what the cause is. I have heard about a car wobbling as it goes down the highway.

I think that these are things that, if basically taught, would be quite helpful.

Mr. MARSHALL. Yes, sir.

The CHAIRMAN. You say that about 13,000 high schools offer some type of driver education. I might ask, if you know, how many high schools do we have in the United States?

Mr. MARSHALL. I could provide the exact figures for the committee. I would guess in the vicinity of 19,000, roughly.

The CHAIRMAN. This would be the proper time to teach, would it not, in the high schools, before the students get to college?

Mr. MARSHALL. Yes, sir. We feel very definitely if the individual is going to operate a motor vehicle, he should have driver education. We believe the logical time to reach this person is just prior to the legal driving age, with the facilities that we have through the public schools.

The CHAIRMAN. You have access to the records of most States. Do you know what the average age is at which they can be licensed in the States?

Mr. MARSHALL. I would say, sir, the average is probably 16. However, the age varies from 14 for a learner's permit up to the age of



18. The National Education Association does a study every 2 or 3 years of special State financial support for driver education. That happens to be one of the questions that we have in this publication, the driving age.

Some States believe that driver education is so important that a young person who has satisfactorily completed the program can receive his license 5 months and up to 2 years before the normal driving age. There are now 13 such States with 3 others having legislation to go into effect next year, and the following year, to make it a total of 16.

The CHAIRMAN. That is where they would license a driver who had this education at an earlier age?

Mr. MARSHALL. Yes, sir.

The CHAIRMAN. I noticed you said something about premiums on insurance being lower where they had this education. Is that universal across the Nation?

Mr. MARSHALL. As far as I know. Undoubtedly there may be insurance companies that do not lower the premiums. However, I am not aware of any of these. I know in some cities where studies have been made, the reduced insurance premiums for young people who have had driver education more than three times pays for the cost of the program. I would say it is rather universal.

The CHAIRMAN. You mentioned 30 State legislatures have passed special funds and appropriated funds for support of driver education courses.

Mr. MARSHALL. Yes, sir.

The CHAIRMAN. What about the other 20 States? Do they have a driver education program?

Mr. MARSHALL. Yes, sir; all the States have driver education courses. Last year all but one State I believe, had some form of legislation pending for driver education legislation.

The CHAIRMAN. On the first page of your statement, you mentioned measures relating to highways, vehicles, traffic law enforcement, motor vehicle inspection, driver licensing, and uniformity in traffic laws and traffic control devices. Then you go on to driver education.

You consider all of these important, then, and believe that we should take them up in these safety bills? You consider them all important in the highway safety program?

Mr. MARSHALL. Yes, sir; and others. We only used these as examples. There would be other aspects also in the total traffic safety program.

The CHAIRMAN. As to driver education—where would you put it in relation to the rest of the subjects which should be considered?

Mr. MARSHALL. We, in education, think it is extremely important.

The CHAIRMAN. Of course, a car can be no better than a driver, and he can be no better than he has been taught.

Mr. MARSHALL. Yes, sir.

The CHAIRMAN. I would agree with you that I think it is one of the important aspects of this traffic safety on the roads. Of course, there are some motor vehicles that are defective and some roads that are defective. It wasn't mentioned in the proposed legislation at all, do you say, driver education?

Mr. MARSHALL. Driver education was mentioned in the remarks part, but the improvement of the driver was the language used. I assume this would be interpreted to be driver education, but driver education, per se, was not spelled out.

The CHAIRMAN. And you think it is important, then, if we are going to consider any types of highway traffic safety, that this be put into some form of legislation, or at least recognized and something done about it?

Mr. MARSHALL. Yes, sir.

The CHAIRMAN. I am very happy to have your views. I think they add greatly to the hearings.

Mr. Moss?

Mr. Moss. Mr. Chairman, I have a serious question as to the appropriateness of this subject in the hearings being held. It would seem to be a matter to be presented before the Committee on Education and Labor rather than Interstate and Foreign Commerce.

Have you any figures to indicate the amount of money you are talking about or the Federal seed money necessary to inaugurate a program of driver education in the schools across the Nation?

Mr. MARSHALL. The average cost of the program is estimated at \$50 per student for a typical program, so you see, with 1½ million enrolled, this would be about \$75 million that is now being expended for driver education.

Mr. Moss. Do you feel that the major fault is the driver?

Mr. MARSHALL. In motor vehicle accidents; yes, sir.

Mr. Moss. Do you have any statistical data to back up that conclusion?

Mr. MARSHALL. I think a number of studies have been made in this regard.

Mr. Moss. Can you cite any?

Mr. MARSHALL. I think the records of most State motor vehicle departments, the accidents reported, would clearly indicate this.

Mr. Moss. How many of the State motor vehicle departments look at the automobile and examine it with the care that they would examine any other conveyance involved in an accident to determine whether it was driver failure or vehicle failure? How complete is that type of investigation?

Isn't that certainly germane to any conclusion as to whether it is driver failure or vehicle failure?

Mr. MARSHALL. I am sure we need much more research in all aspects of the traffic safety problem.

Mr. Moss. I have been impressed, as a user of automobiles, with the obviously flagrant instances of just shockingly bad engineering. For years, one of the first things I have had done with an automobile that I buy is to have them spray over the wiper arm so that it didn't reflect and blind me as I drove along. I don't think there is any question but that this is bad engineering. I think it is even conceivable that it could cause an accident.

If I drove very long with one of them undulled, I could certainly see difficulties arising. Don't you think there are many instances of obvious inadequacies in engineering?

Mr. MARSHALL. Yes, sir. This is one of the areas that we try to stress in driver education, the proper maintenance of the motor vehicle



and the corrections to be made. For example, the windshield wiper that you mentioned, if this is a glare factor on certain automobiles, if the driver is going to operate that motor vehicle he should correct the deficiency.

Mr. Moss. I think an expense on that is normally about \$7.50 to have it sprayed. Should he be put to that expense? Certainly we should have some means of requiring minimal, reasonable standards for safety so that we are not so dependent upon each driver. Isn't that true?

Mr. MARSHALL. I would agree.

Mr. Moss. Isn't there a possibility that perhaps equal emphasis could be placed upon better safety engineering as well as more adequately trained drivers?

Mr. MARSHALL. Yes, sir. I think all areas of the traffic safety program need greater emphasis.

Mr. Moss. I am impressed every evening in driving from here to Alexandria with the obvious glare of four headlights on the front end of every automobile when you don't have an automatic dimmer and you have many thoughtless people who keep those four lights up high, right in your face.

I think those things could be engineered out. Yet they continue, year in and year out, causing accidents.

In my State of California, on this matter of reduced rates, I don't know how you would really arrive at a final determination of whether rates have been reduced as a result of driver education, because my rates, both of my youngsters having taken driver education in California schools, have consistently gone up year in and year out. Maybe they are a little less than they would be because of that education, but the rate continues up because of the high cost of the total accidents.

Mr. MARSHALL. I think this is true for all drivers, the increased rates. I believe in the State of California, your youngsters receive a lower rate than those who did not take driver education.

Mr. Moss. But the lower rate today is higher than it was a few years ago.

Mr. MARSHALL. Yes, sir.

Mr. Moss. And it looks like I can look forward to it continuing to go up, as long as I have the responsibility of insuring my youngsters in driving.

Mr. Chairman, that is all I have.

The CHAIRMAN. In response to what the gentleman said about this belonging before the Education and Labor Committee, I would like to respond to him that this entire question is before us today, and I think this committee would be very remiss if we didn't get into one of the most serious aspects of this whole thing and take it up now, because safety comes under the jurisdiction of this committee, and this is safety.

Mr. Younger.

Mr. YOUNGER. Thank you, Mr. Chairman.

Mr. Marshall, why do you think that the Federal Government ought to pay for this education?

Mr. MARSHALL. We see many young people not receiving driver education each year. We believe in the importance of driver education. If you are going to consider other aspects of the traffic problem, we think this is an integral part of it.

Mr. YOUNGER. Part of it is recognized as intrastate and part of it is interstate. For instance, in California, the schools all already teach, as you know, in all high schools, driver education. It is provided for. Why should the Federal Government come along and start picking up the check for it?

Mr. MARSHALL. I believe, sir, in the State of California, all the young people who are in that State at the sophomore level receive the classroom part of driver education. I don't think all of them receive the in-car practice or the laboratory phase of driver education.

Mr. YOUNGER. I see their cars running along the road all the time with the signs on them.

Mr. MARSHALL. Yes, sir. There are many driver education programs throughout the State. I don't have at my fingertips the percentage who receive actual in-car instruction. I know nearly 100 percent receive classroom instruction, unless they have moved in from another State or have transferred.

Mr. YOUNGER. You are in the education field. On this whole problem I am wondering how you are going to get people to conform. Seat belts have been required. We have had all kinds of testimony and publicity about the necessity for seat belts, how many lives they save, and so forth. Yet 90 percent of the people that have seat belts do not use them.

How are you going to get people educated to the point of using some safety device that is already there?

Mr. MARSHALL. This, I think, is part of the driver education program. Seat belts are in all of the vehicles used by the instructors and students. They understand the need for and the purpose of them. From observing these young people in their own vehicles and with their parents, I think this message is getting across in driver education.

Mr. YOUNGER. That is all, Mr. Chairman.

The CHAIRMAN. Mr. Cunningham.

Mr. CUNNINGHAM. Thank you, Mr. Chairman.

I want to congratulate this witness because he has, for the first time so far in these hearings, really gotten to the nub of this problem.

As I said yesterday, we have the three "E's" in traffic safety, Education, Engineering, and Enforcement.

I said at that time that education was doing better than the other two.

I will subscribe to each and every recommendation you make in your paper, sir. In answer to those who say how much is it going to cost or where is the money coming from, school boards all over the country are strapped for funds and everybody knows it. There has been a lot of lipservice about Federal aid to education.

If the Federal Government is sincere about this accident problem, surely a relatively small sum, as you mentioned, is certainly desirable.

I will say that the schools across the country have done a fine job.

I mentioned yesterday, and I think you are familiar with the fact, that many schools do not have the cars, but the automobile companies have donated cars for this purpose; isn't that so?

Mr. MARSHALL. Yes, sir.

Mr. CUNNINGHAM. I might say that there are plenty of statistics to back up the fact that a major cause of accidents is driver failure.



As I mentioned yesterday, I hope that as we continue the hearings on this subject somebody will see to it that statistics are presented to us, because they are available. If no one else will, I will.

Education has an important role to play in traffic safety. Outside of the schools, it is up to all of our media, news media, to do their job. Some of them are doing an excellent job and some are doing no job at all. These are the first hearings we have had for a long time on this major problem, and a lot of news on this subject was made yesterday. But I picked up the daily paper of last evening and I find absolutely no mention of the fact that we are even having these hearings, no quotations from any of the people who spoke. So newspapers around the country who are a potent force are not all doing their job.

When I was in this field professionally at least once a year our newspaper would conduct a strong campaign in traffic safety. They weren't of the opinion that it had to be just news to make their paper.

In one of those campaigns we decided we would try to beat the all-time record of no fatalities on a man-day basis. In other words, so many days, based on population, so that would equalize my State of Nebraska, we will say, with some large city such as Cincinnati.

With the cooperation of the newspaper and many things that they did that were not strictly news stories but of a promotional nature, we broke the national record by going 191 days without a single traffic fatality.

This same newspaper today in my hometown carries a column, most often on the front page with the heading "Traffic fatalities to date, this year compared to last year," and various other statistics. This is all a part of education.

I would say that the news media, and particularly the newspapers, have a major responsibility in this field and I hope they will get the message, and I hope you will agree with me.

Mr. MARSHALL. Yes, sir.

Mr. CUNNINGHAM. That is all I have to say at this time. Thank you.

The CHAIRMAN. Mr. Satterfield?

Mr. SATTERFIELD. No questions.

The CHAIRMAN. Mr. Broyhill?

Mr. BROYHILL. Thank you, Mr. Chairman.

I am sorry that I did not hear your presentation this morning, Mr. Marshall, but I have read the four points that you relate in the latter part of your statement. I would like to ask just one question: You have studied the bills that are before this committee. Do you feel, for example, that the Staggers bill includes authority for the Secretary to put into effect these recommendations that you make?

Mr. MARSHALL. We think it could be interpreted so; yes, sir. I mentioned earlier, though, that driver education, per se, was not spelled out in the legislation.

Mr. BROYHILL. I read, of course, that the program should be calculated to improve driver performance. Could this be interpreted as including driver education?

Mr. MARSHALL. Yes, sir; I think so.

Mr. BROYHILL. Thank you.

The CHAIRMAN. Mr. Mackay.

Mr. MACKAY. Thank you, Mr. Chairman.

Mr. Marshall, is there any criteria established for driver training by your organization?

Mr. MARSHALL. Yes, sir. Back in 1949 the first national conference was held on driver education. The U.S. Office of Education, some 18 departments of the National Education Association, and 50 State education departments convened, with about 150 people meeting, and they came up with what we call policies and practices for driver education, what the teachers should be, the characteristics, qualifications, what we are looking for in the teachers, the course content, how to administer the program. This conference has been held every 4 or 5 years since that time, the last one being in 1963.

The new policies and practices for driver safety education is issued and widely distributed and covers the points of conducting programs at the university level, the State department of education level, and the local level.

Mr. MACKAY. Would you describe that document to us?

Mr. MARSHALL. This is the report of the National Conference on Driver Education of 1963 which outlines policies and practices for driver and traffic safety education in the Nation's schools. It was held at a national conference at the NEA building in Washington, D.C., November 13 to 15, 1963.

Mr. MACKAY. Was that issued by the NEA?

Mr. MARSHALL. Yes, sir; and the other organizations that I mentioned.

Mr. MACKAY. Do you know whether any Government agency has issued any kind of a statement of its opinion as to criteria for driver training?

I am referring to the Office of Education, for example.

Mr. MARSHALL. Representatives from the Office of Education were in attendance at this conference; yes, sir.

Mr. MACKAY. But there is no statement from the Government as to what minimum program it would recommend for uniform driver training?

Mr. MARSHALL. Not that I am aware of. However, following this conference, and several of these have been held every 4 or 5 years since 1949, last year another national conference was called to supplement this publication, the first publication. It was a National Conference on Teacher Preparation and Certification for Driver and Traffic Safety Education, where the competencies of the driver education teacher; the responsibilities of the State departments of education, and the colleges and universities were reviewed in depth.

One Federal agency cosponsored this conference, financially, along with another agency and the National Education Association and several NEA departments conducted the conference.

Mr. MACKAY. Could you furnish us the publications from 1949 forward this conference has produced?

Mr. MARSHALL. Yes, sir; we would be happy to.

(Publications supplied will be found in the committee file.)

Mr. MACKAY. For example, do you require training in the vehicle for an adequate program?

Mr. MARSHALL. Yes, sir. We call this the laboratory phase of driver education.



Mr. MACKAY. Do you know whether there is a driving simulator used in any program in any high school in the country?

Mr. MARSHALL. Yes, sir. There are a number of simulators used in driver education training. I forget the exact number of States that use them. They do reach a large number of young people with simulators however.

Mr. MACKAY. Can you state to the committee what driver simulator is considered to be the best now?

Mr. MARSHALL. No, sir; I cannot. There are three of these on the market. Schools across the country are using various types.

Mr. MACKAY. Could you furnish this committee with a description of the simulators that are used now anywhere in the country?

Mr. MARSHALL. Yes, sir; I could furnish descriptive materials for the three basic types.

Mr. MACKAY. Can you furnish the committee with a list of where driver training is given in this country and where it is not given? Does your office maintain a record of what school systems provide driver training?

Mr. MARSHALL. No, sir. For this we would have to turn to the 50 State departments of education. We know the total numbers, the schools and the students. But to say that X city within a State does or does not offer driver education, we would have to go to the State department of education.

Mr. MACKAY. From your testimony, I understood you to say that only about 3 million boys and girls are now reaching the appropriate age for driver training.

Mr. MARSHALL. Yes, sir; this last year.

Mr. MACKAY. That is all, just 3 million of them?

Mr. MARSHALL. Yes, sir. We know by 1970 this will go over 4 million. But at the present time, those reaching legal driving age, or the sophomore year is approximately 3 million.

Mr. MACKAY. Would you be able to furnish us as complete a bibliography on driver training as your office can put together?

Mr. MARSHALL. Yes, sir.

(The information requested appears on p. 113.)

Mr. MACKAY. Are you familiar with the report of the President's Committee for Traffic Safety issued in November 1965?

Mr. MARSHALL. Yes, sir.

Mr. MACKAY. Do you recall that in it, the estimated costs ran to \$44 million?

Mr. MARSHALL. For driver education, yes.

Mr. MACKAY. Do you have an opinion as to how much money it would take to finance a driver education program for all of the eligible youngsters in the country?

Mr. MARSHALL. I would have to do some quick arithmetic. The average cost we estimate is \$50 per person for the typical program. This may vary if simulators or range programs are used. It may be a little more in small school systems. But the average is \$50 per person.

If we have 3 million young people, it would be 50 times this figure for a rough estimate.

Mr. MACKAY. Do you know whether there are any Federal funds now being applied specifically for driver education under any Federal aid to education program?

Mr. MARSHALL. No, sir; I do not. However, I understand that under Public Law 89-10 funds might be used for research studies or the appointment of supervisors under titles IV, I, and V.

For example, perhaps the employment of teachers under title I; the purchase of equipment under title III.

Mr. MACKAY. From an administrative standpoint, getting back to the point raised by Congressman Moss, do you feel that the administration of funds for driver training should be through the Aid to Education Act or through another act?

Mr. MARSHALL. I think through channels that are already open would be most appropriate. However, this wouldn't rule out other means of providing financial support that we believe is necessary.

Mr. MACKAY. I would like to compliment you on your presentation and say that I certainly agree with the four points that are recommended in your statement. I would appreciate the information that we have requested. I think this is a very crucial point; that is, whether or not we are going to have a department of transportation receiving appropriations for transmittal to State departments of education for driver education or whether these funds should be channeled through an Aid to Education Act.

Mr. MARSHALL. As I read the bill, I thought perhaps this was covered where it said other agencies could help administer this legislation. Perhaps I was misinterpreting the bill. I was thinking about the U.S. Office of Education in this bill helping administer the program.

Mr. MACKAY. Would you say the programs now in force around the country are fairly uniform in their quality or do they vary widely in terms of the thoroughness in which they go into driver training?

Mr. MARSHALL. There are a number of factors to be discussed under this.

Because of a publication (Policies and Practices for Driver and Traffic Safety Education) such as I referred to, I think there is uniformity to a great extent. However, the States vary in the driver education teacher certification requirements. The States vary the amount of time that is spent in the program. In some States a number of schools offer a full semester. In some it is the minimum program that is referred to in the policies and practices, with 30 clock hours in the classroom and 6 hours of laboratory instruction or in-car practice.

With the different certification requirements, different amounts of funds available, there will be these differences, but basically I think the programs across the country meet the guidelines as spelled out.

Mr. MACKAY. I take it you don't agree with those elements in the education profession that say that driver training has no place during the school hours or in the curriculum?

Mr. MARSHALL. No, sir; I do not agree. We believe that every young person who will operate a motor vehicle should have an opportunity to take driver education in high school along with other courses in the curriculum.

Mr. MACKAY. I agree with you. But there are some who think it should be conducted in the summertime or by the State patrol.

Mr. MARSHALL. The National School Board Association, one of the sponsors of this publication, joins with 18 other departments in the publication of this document.



Mr. MACKAY. So the point is that it should become a vital part of the curriculum.

Mr. MARSHALL. Yes, sir.

Mr. MACKAY. Thank you very much.

The CHAIRMAN. Dr. Carter.

Mr. CARTER. I have no questions, but I am certainly in favor of doing something to improve our safety on the highways. It presents one of the greatest problems to our people; each year we have so many people killed, maimed, and disabled on our highways. We must do something to stop these accidents and deaths.

The CHAIRMAN. Mr. Gilligan?

Mr. GILLIGAN. No questions, Mr. Chairman.

The CHAIRMAN. Mr. Farnsley.

Mr. FARNSLEY. Thank you, Mr. Chairman.

There is one other thing that I believe you ought to teach your students, and that is the failure to buy a car in the beginning with front wheel disk brakes. I have a couple of cars with front wheel disk brakes and I lent one to be taken out on the highway, going 10 miles an hour, and putting on the brakes quickly, and then going up to 70 miles an hour if the speed limit allows it. You will find in every case you can stop in a straight line very soon. When it comes to comparing that with a car with front wheel drum brakes I hesitate to recommend that you do it, although if you have a kamikaze squad that you put out with helmets on and strap them in very well they might be reasonably safe in going up to 30 miles an hour in the ordinary automobile, one with drum brakes.

Inevitably, of course, American manufacturers will switch to disk brakes. All the companies now make them optional on some models, except General Motors.

It is very important to be able to stop, of course, and not to go all over the road.

It has been said that when you put on the brakes in a car that has four wheel disk brakes, it is as if the hand of God reaches down and stops you. If you put on the brakes and panic stop with a car with drum brakes, it will be the hand of the devil. Goodness knows what would happen.

We have heard about trailers that would go head over heels. An American automobile is liable to go anywhere.

It is nice of you to bring this little thing to have it distributed. I will return the compliment. I have a study from the Library of Congress about reduction of crime and delinquency with street lights. Just as a bonus they threw in nuggets like this: Between 1953 and 1960 new lights were installed in nine locations in the State of Virginia. A study made by the Virginia Department of Highways indicates that the number of traffic accidents at these locations decreased 38 percent and the traffic fatalities dropped 90 percent.

When I was mayor, my traffic engineer told me that for every fatality there were 35 personal injuries. I don't know if that still holds or not but it is pretty close. That is chewing up a lot of people. I can't multiply 50,000 by 35 in my head, but it is chewing up a lot of people unnecessarily.

I get a lot of letters about what doctors are doing to dogs. Well, we are chewing up people a lot faster than we are dogs.

Mr. KORNEGAY. Will the gentleman yield for a question?

Mr. FARNSLEY. Yes.

Mr. KORNEGAY. What kind of brakes did the gentleman have?

Mr. FARNSLEY. Well, it had the wrong kind of brakes so I got a different car.

The CHAIRMAN. Mr. Macdonald.

Mr. MACDONALD. I just have one question.

On page 4 of your statement, in the first paragraph, you say that funds to make driver education a reality for all eligible boys and girls should be available.

What criteria would you use to make funds eligible?

Mr. MARSHALL. We believe those who are going to operate a motor vehicle, just prior to the legal age.

Mr. MACDONALD. Are these people who are in school, are these people who are out of school? I know in the State of Massachusetts, where I come from, most of the driver education is done on the basis of your paying a fee, where your children go and learn how to drive to a private driving school.

Will funds be made available to the people who go to the private driver education schools or just to the public schools?

Mr. MARSHALL. Just in the public schools we are talking about, where the youngsters are and where the teachers and programs can be initiated just as any other course taught these young people.

Mr. MACDONALD. So the thrust of your whole testimony goes to tying in this bill with the public school education system of the 50 States?

Mr. MARSHALL. Yes, sir.

Mr. MACDONALD. Does that include parochial schools, too?

Mr. MARSHALL. In some of the States, the parochial and private school students are covered by going to the other schools during the day or on Saturdays or during the summertime.

Mr. MACDONALD. What if there was a whole area that didn't have this driver education system in the public or parochial schools but there were private schools available?

Would you make these people travel 15 miles, or would you punish the children whose lives are equally risked according to your testimony on the highway just because the school committee in that area doesn't see fit to have a driver education program? Wouldn't this be a type of discrimination against the youngsters?

Mr. MARSHALL. We think if funds are made available to a school district, the driver education course will be included or offered. We have noted this in States that have recently passed State financial support where they were reaching a small percentage before.

Michigan is a good example. They now reach 100 percent of the eligible students just prior to the legal driving age.

Mr. MACDONALD. This is my last question, because I know Mr. Mackay has more questions: Massachusetts has a very poor driver education system, percentagewise. I would think there would be whole areas of school systems that don't have this driver education program.

I was wondering what you would do with these children.

Mr. MARSHALL. We believe they have to be educated and certificated as any other teacher, with special education in driver and safety edu-



cation, because this is education. It takes a well-prepared teacher to do the task.

Mr. MACDONALD. I grant all that. I am just saying that the school committee or the mayor, whoever makes the decision, hasn't made the decision to have the schoolchildren of that school area be subjected to this driver education program.

What would you do with those children, if anything?

Mr. MARSHALL. As I said earlier, we believe if funds are made available this will happen. We have heard this discussion in other States and when the funds become available so that they could initiate the program, these districts included the program. That is why I mentioned Michigan, where they now reach 100 percent of the student body.

Mr. MACDONALD. Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Kornegay?

Mr. KORNEGAY. Thank you, Mr. Chairman.

Mr. Marshall, I want to commend you for your statement. I appreciate your coming before the committee.

Do you have any statistics to indicate the accident rates for young people who have had driver training as opposed to those who have not had driver training?

Mr. MARSHALL. A number of studies have been done in this area. As I mentioned earlier in my statement, there are some discrepancies in these because it is difficult to compare individuals who have had the course precisely with individuals of the same background and qualification, driving experience, who have not had the program. But of those 30-some studies that we are familiar with, they all tend to indicate that those young people who have completed a course in driver education have a much better driving record than those young people who have not had this opportunity.

Mr. KORNEGAY. That was my understanding of the fact in my State of North Carolina. We have driver education there in the high schools. It was my understanding, while I don't have statistics at hand, that those who have had driver training have a much better record the first year, or 2 years, or however long you want to compare, than those who have not had driver training.

The program is financed by charging \$1 on each license plate that is issued throughout the State. Here, again, I don't have the figures on whether that is a sufficient amount to carry on the program or not, but knowing how we operate down there I am sure it is.

Does your organization make any effort in the State legislatures to adopt a plan similar to the one we have in North Carolina? You mentioned that only 30 States have driver training.

Mr. MARSHALL. When we are asked, members of our staff appear before State legislative groups to discuss driver education.

Mr. KORNEGAY. You do that on request?

Mr. MARSHALL. Yes, sir.

Mr. KORNEGAY. I was interested in your comment, one that is well taken, that in addition to the technical knowledge the student gains from driver training it stimulates them to support the efforts of the local highway transportation system. By that I am sure you must mean the local law enforcement officer, to have a better attitude or a good attitude toward his fellow drivers on the highways and pedestrian he might encounter along the road.

In my study, to a large extent police officers are used in driver training. Do you have any comment on whether it is good or bad?

Mr. MARSHALL. We believe that the police officer can serve as a resource person to visit the classroom and discuss aspects of his responsibility. We believe the teacher should be a well-qualified driver education instructor prepared for this purpose.

Mr. KORNEGAY. What is wrong with having police officers prepared, one who is a good driver, one who knows how to teach?

Mr. MARSHALL. If they meet the recommendations as several national conferences have spelled out as far as education and preparation, and knowing how to present material as teachers do, there would be nothing wrong with it.

Mr. KORNEGAY. Wouldn't it actually be an added incentive to the student since he would become familiar with police officers, and that he would recognize the fact that the police officers are there to help people? Wouldn't it have a good psychological effect?

Mr. MARSHALL. Let me say again we believe this should be a qualified driver educator, a well-qualified person. We believe the police officer could serve as a resource person, as the highway patrolman does, the traffic engineer, and other officials of the various aspects of the total program for the classroom.

But, we believe these young people should be taught by people who are prepared and trained for this purpose.

Mr. KORNEGAY. Thank you very much.

That is all, Mr. Chairman.

The CHAIRMAN. Mr. Mackay.

Mr. MACKAY. Mr. Chairman, thank you.

In your bibliography will you furnish us the reports that study and evaluate driver training courses?

Mr. MARSHALL. Yes, sir.

Mr. MACKAY. Second, do you know what percentage of our population is not in the public schools at the age they should receive driver training?

Mr. MARSHALL. No, sir; I couldn't give you that offhand but I can give the information to you later.

Mr. MACKAY. I am very sympathetic with what Mr. Macdonald had to say. It reminds me of the man who ventured out only on Sunday, thinking it would be a safe day, and he got run over by a Seventh Day Adventist.

It seems to me there is no religious problem involved in driver training and the legislatures should see to it that every child gets this driver training.

I feel a great need for help on the question of the price tag on this. Most people are for driver training but when you get down to financing it, there is the real rub. The President's Committee for Traffic Safety estimated the cost to the States for driver education at \$230 million and to the cities at \$44,200,000.

Would you undertake as keen an analysis of the price tag you believe to be involved in educating for driver training, and also would you give us your opinion as to the formula set out in the administration bill on page 23 for the administration of these grants?

Mr. MARSHALL. Do you mean at a later date?

Mr. KORNEGAY. Yes, sir.



Mr. MARSHALL. Yes, sir.

Mr. KORNEGAY. Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Marshall, if you will supply that information, it will be inserted into the record.

Mr. MARSHALL. Yes, sir. And, I will be happy to bring over these other publications. In addition, there are a number of studies that we have in the office coming back to the initial question of the cause of accidents. I don't have them with me at the time, but we can provide this.

The CHAIRMAN. The publications that you have in front of you, do you have enough of them that you can supply each member of the committee with a copy?

Mr. MARSHALL. Yes, sir.

The CHAIRMAN. I wish you would do that.

(The information requested follows:)

#### SUPPLEMENTAL REPORT ON DRIVER EDUCATION

(Provided by the National Commission on Safety Education, National Education Association, as requested by the Honorable Harley O. Staggers, Chairman, Committee on Interstate and Foreign Commerce, based on testimony of Robert Marshall, March 16, 1966.)

#### SUMMARY OF MARCH 16 RECOMMENDATIONS

Driver Education shall be included as an integral part of the proposed federal legislation for traffic safety. Four specific approaches are suggested for consideration:

*First.*—provide funds to make driver education a reality for all eligible boys and girls in all states of the United States in the secondary schools.

*Second.*—provide funds for research aimed at the improvement of instruction in driver education.

*Third.*—provide funds to help assure improved preparation of teachers of driver education.

*Fourth.*—provide funds for state-level supervision of driver education.

*What specific changes in proposed legislation would enable the federal government to include driver education along with other important activities aimed at improving safety on highways?*

It is recommended that authorization be provided through H.R. 13228. This may be accomplished by minor changes under Title III—Highway Safety. Under Paragraph 402, line 18, it is suggested that the phrase "including driver education" be inserted after the word "performance." Under Paragraph 403, line 20, the phrase "improvement of instruction in driver education" could be inserted after the word "safety."

*Is there evidence that driver error is a primary cause of traffic accidents?*

Exhibit I provides excerpts from investigations made between 1938 and 1964. A meaningful statement was made by McFarland after an extensive review of research in this area:

"\* \* \* the primary causes are to be sought in the motor vehicle driver, his equipment, and the setting in which the accident occurs, as all three exist together."

*Does driver education pay off?*

Attention is called to Exhibit II which presents summary information on recent studies in which driving records of trained and untrained drivers have been compared. While limitations in research design have not permitted complete isolation of the effect of driver education, the volume of comparative studies with results in favor of driver-educated groups, leads to the inescapable conclusion that driver education has proved its worth.

*How much would it cost to provide every beginning driver in the nation with a course in driver education?*

For the price of constructing about 200 miles of interstate roadway, all beginning motor vehicle operators in the U.S. could receive a course in driver education.

The total cost figure for 1966 would be approximately 180 million dollars and for 1976 would slightly exceed 200 million dollars. Should federal funds be used to cover 50 percent of costs, the federal share for a full-scale program would range between 90 and 105 million dollars each year.

See Exhibit III.

*What would be the annual cost to the federal government for research on improvement of instruction, teacher preparation, and state-level supervision?*

	Million
Research.....	\$9.3
Teacher preparation.....	2.5
Supervision.....	.5
Total.....	12.3

See Exhibit III.

*How many young drivers reach the minimum legal driving age each year?*

According to the U.S. Office of Vital Statistics, there were 3.6 million births during 1950. Since an unknown number of these young citizens are not alive today and another unknown number are either mentally or physically unfit to operate a motor vehicle, this figure may be used as the maximum number of beginning drivers of all ages as of 1966.

By 1970, the estimated annual number of new drivers will likely pass the 4 million mark.

At the present time, it is estimated that 3 million "eligible" youngsters are enrolled in public high schools, 0.4 million (12 percent of 15-17 age group) are enrolled in private or parochial high schools, and 0.2 million are not enrolled in a recognized secondary school.

See Exhibit III.

*Which states have special financial aid legislation for driver education?*

Thirty states have in effect enactments which provide local schools with special financial support for driver education. In 16 states, successful completion of a state-approved course in driver education enables a young motor vehicle operator to obtain a regular driver license at an earlier age than would otherwise be allowed.

NOTE.—A summary publication on this subject will be provided to the committee membership before April 30, 1966.

*At what age may a young driver be licensed to operate a motor vehicle?*

State	Learner permit	Regular license	State	Learner permit	Regular license
Alabama.....	15	16	Montana.....	15	15
Alaska.....	14	16	Nebraska.....	15	20
Arizona.....	15-7	16	Nevada.....	15-6	16
Arkansas.....	14	16	New Hampshire.....	15	16
California.....	15-6	16	New Jersey.....	17	17
Colorado.....	16	17	New Mexico.....	14	16
Connecticut.....	16	21	New York.....	16	16
Delaware.....	16	16	North Carolina.....	16	16
District of Columbia.....	16	16	North Dakota.....	13	18
Florida.....	14	16	Ohio.....	16	21
Georgia.....	15	16	Oklahoma.....	16	16
Hawaii.....	15	15	Oregon.....	15	16
Idaho.....	14	14	Pennsylvania.....	16	16
Illinois.....	15	16	Rhode Island.....	16	16
Indiana.....	16	18	South Carolina.....	14	16
Iowa.....	14	16	South Dakota.....	14	16
Kansas.....	14	16	Tennessee.....	16	16
Kentucky.....	16	16	Texas.....	14	14
Louisiana.....	15	15	Utah.....	15-6	16
Maine.....	17	17	Vermont.....	15	18
Maryland.....	16	16	Virginia.....	15	15
Massachusetts.....	16	16	Washington.....	15	16
Michigan.....	14	16	West Virginia.....	16	16
Minnesota.....	16	21	Wisconsin.....	16	16
Mississippi.....	15	15	Wyoming.....	15	15
Missouri.....	16	16			



*What about availability of reference material on driver education?*

Exhibit IV consists of selected material covering the following :

- (a) Policies and Practices for Driver and Traffic Safety Education.
- (b) Policies and Guidelines for Teacher Preparation and Certification in Driver and Traffic Safety Education.
- (c) School and student participation in each of the 50 states.
- (d) Nature of simulation equipment available for use in driver education.
- (e) Insurance rate differential information.
- (f) List of selected references.

#### EXHIBIT I: DRIVER ERROR, A PRIMARY CAUSE OF TRAFFIC ACCIDENTS

The Public Roads Administration, in 1938, reported on a study of 892 fatal highway accidents and their causes. It was found that the "large majority" resulted from a combination of causes. A classification of listed causes showed that 24.3 percent were related to poor visibility, road hazards, or vehicle defect and that 75.7 percent were attributed to driver error or physical limitation.

Public Roads Administration. *Motor Vehicle Traffic Conditions in the United States, Part V*. Washington: The Administration, House Document 462, 1938. pp. 1-76.

In 1940, DeSilva found that drivers who were driving above the posted speed limit on a rural highway in Connecticut had 50 percent more traffic accidents against their record than drivers who were driving under the speed limit.

DeSilva, Harry R. *Why We Have Automobile Accidents*. New York: John Wiley and Sons, Inc., 1942. p. 35.

McFarland and others of the Harvard School of Public Health, in 1955, reported on an extensive review of research literature. The investigators observed that:

"\* \* \* a search for single causes of accidents is likely to prove unproductive, and that, in respect to vehicular accidents, the primary causes are to be sought in the motor vehicle driver, his equipment, and the setting in which the accident occurs, as all three exist together."

McFarland, Ross A., et. al. *Human Variables in Motor Vehicle Accidents, A Review of the Literature*. Boston: Harvard School of Public Health, 1955. p. 14.

A study of 258 fatal traffic accidents concluded that "over-confidence was present in most cases in the form of an 'unwarranted assumption of mastery over car and road' or refusal to acknowledge physical limitations, fatigue, illness, lack of sleep." It was also reported that 52.7 percent of the drivers were "under the influence" of alcohol at the time of the accident.

Connecticut Safety Commission. *Special Study of One-Car Fatal Traffic Accidents*. Hartford: The Commission, 1958.

House Document No. 93, 86th Congress, 1st Session carries the title of "The Federal Role in Highway Safety." In the form of a letter from the Secretary of Commerce, the publication lists 35 references to studies concerned with the human factor in traffic accident causation. On page 29, the following observation is made:

"Most presentations on the cause of highway accidents assign responsibility for 9 out of 10 accidents to the driver, with the other one being split about equally between the vehicle and the driver."

Secretary of Commerce. *The Federal Role in Highway Safety*. Washington: U.S. Printing Office, House Document No. 93, 86th Congress, 1st Session, 1959.

A 1960 study of human factors in accident prevention by the U.S. Department of Health, Education, and Welfare reported the following:

"It is an inescapable conclusion that over 80 percent of accidental deaths are largely under the control of the individual \* \* \*"

King, Barry et. al. *The Role of Human Factors in Accident Prevention*. Washington: United States Office of Health, Education, and Welfare, August, 1960. p. 97.

According to a summary of reports from 26 state motor vehicle departments, "improper driving" in 1964 took the form of "speed, driving left of center line, and failure to yield right of way." On turnpikes, it was reported that the "condition of the driver" was a "contributing factor" in 2 out of 5 fatal turnpike accidents during 1964.

National Safety Council. *Accident Facts, 1965 Edition*. Chicago: The Council. pp. 48-49.

Centuries ago Aristotle said we cannot seek to prove everything, otherwise the chain of proof would be endless. So we must accept certain things as axioms and proceed from there. The major sciences have done this. We can and should do this and therein should lie our answer when asked whether safety education is worthwhile. In not seeking to elaborate the obvious or expected, we shall save time as well as money. This is important if not urgent, for one year in our era is like a century in the past. We must move quickly.

Brody, Leon. "Ideas and Action for Safety Education." *Safety, Journal of Administration, Instruction, Protection*. Vol. 1, No. 4. Washington: NEA National Commission on Safety Education. March-April, 1966. pp. 12-15.

## EXHIBIT II: SUMMARY INFORMATION, VALUE OF DRIVER EDUCATION

### IN SUPPORT OF DRIVER EDUCATION

(Prepared for the Connecticut Citizens Committee for High School Driver Education, the Parent Teacher Association of Connecticut, Inc., the Connecticut Junior Chamber of Commerce)

#### 1. The record speaks

A. From a recent publication of the Research and Safety Section, College of Physical Education and Health, University of Florida.

	Percent fewer accidents of trained drivers	Percent fewer violations of trained drivers
Massachusetts.....		30
Minnesota.....	34	26
Ohio.....	72	70
Vermont.....	64	82
Wisconsin.....	68	66

B. From a National Association Summary of Results Evaluating Driver Education—1960-1961.

	Percent fewer accidents of high school trained drivers
Oregon.....	48.2
Delaware.....	37.8
Pennsylvania.....	66.7
West Virginia.....	80.7
New Hampshire.....	75.3

C. Iowa—1960—In a complete check of Iowa's drivers involved in fatal accidents for the year 1960, there were 53 drivers of the 16-17 age group directly involved in fatal accidents. Fifty-two (52) of the fifty-three (53) were untrained drivers.

D. From "Emerging Needs," a 1964 publication of the Utah State Department of Public Instruction. A comparison of the driving records of 5,231 driver education students and 1,844 non-driver-education students for a three year period—1959-1961.

#### Driver education group—

- 20.0% fewer warnings.
- 22.4% fewer convictions.
- 29.2% fewer entries on driving record.
- 33.3% fewer speeding convictions.
- 28.3% fewer accidents.

E. From a recently completed study covering the driving records of 5,295 Lansing, Michigan High School graduates for a 3½ year period.

1. Lansing's driver-educated teenagers had only half as many accidents as the national average of drivers in their age group.

2. 80% of the driver-educated group had no accident whatever during the 3½ year period covered by the study.

3. The same group even had 20% fewer accidents than Lansing's older drivers. (This is particularly impressive since it reverses national statistics.)



F. A report from the Connecticut State Department of Motor Vehicles, January, 1964. Motor vehicle violation involvement of 48,628 provisional license holders—June 1962 to October 1, 1963.

Type of training	Total operators	Percent involvement
Secondary school trained.....	13,834	4.8
Parent trained.....	21,143	7.9
Commercial school trained.....	13,651	8.8

## II. Sensible quotes

### B. Utah State Department of Public Institution:

1. For each dollar invested in high school driver education courses, about three dollars will be saved in terms of the economic cost of accidents prevented.

(a) A male under 25 will save his family \$16.00 to \$30.00 a year for insurance on the family car. If he owns his own car, savings can double.

### B. Utah State Department of Public Instruction:

Young men without driver education pay more in extra insurance premiums than the cost of a standard course.

### C. Insurance Information Institute:

The lack of driver education costs from two to five times as much as the cost-per-pupil of a standard course because of the added insurance premium factor.

### D. Greater Hartford Chamber of Commerce—Traffic Safety Committee:

If the entire Connecticut graduating class of 1961 had been provided driver education at an average cost of \$50.00 per student, by the time they reach age 25, they or their parents would have realized an insurance savings of more than \$2¼ million.

## III. The Nation says, yes!

### A. National Commission on Safety Education—National Education Association:

Strongly urges that driver education courses be available to the youth of our country prior to or near the time of the legal driving age.

### B. National Safety Council:

The successful completion of a high school driver education course which meets the national recommended standards—30 hours classroom instruction, 6 hours behind the wheel—taught by a qualified and certified teacher is an essential requirement for the securing of a driver's license by all new drivers.

### C. National Safety Council—Women's Department:

1. Driver education should be on a par with physical education. Coordination of mind and body developed in the spirit of sportsmanship is as important on the highway as on the playing field.

2. Driver education promotes the welfare of American society by utilizing more fully a fit and uninjured manpower and developing mature concepts of individual and group responsibility.

### D. American Automobile Association:

1. Driver education develops better citizens.

2. Driver education offers one of the great single potentials for future safe, orderly and convenient highway use. A continuing vigorous program should be pursued for advancement of driver education courses in high schools, including high-quality credit classroom activities and practice driving for all high school youths.

3. Driver education is used more than most subjects. A driver education course is constantly applied to everyday life. The average person drives the equivalent of 8 work weeks a year. The drivers of nearly 12,000,000 trucks and over 270,000 buses earn their living by driving.

### E. Insurance Institute for Highway Safety:

1. Driver education offers one of the greatest opportunities to provide on-the-job experiences in citizenship for our nation's youth. An important value to the student and society is the potential acquisition of social and personal responsibilities of good citizenship.

2. Better driving performance by driver education graduates, than by others, is readily apparent where high quality driver education exists.

**F. Auto Industries Highway Safety Committee:**

1. In our highly complex and competitive society, the task of education is to provide our young people with the knowledge, the skills, and most important, the attitudes they must have to survive. Driver education contributes significantly to the accomplishment of the basic program:

it fosters a strong sense of personal responsibility for the common welfare.

it nurtures effective habits of cooperation in solving public problems.

it develops pride in high standards of performance and conduct.

it promotes the safe, efficient and rewarding use of automobiles.

2. Urges all citizens and interested organizations to unite in the concerted effort to make high quality driver education courses available to all eligible young people throughout America.

**G. President's Committee for Traffic Safety:**

1. Funds to make driver education a reality for all eligible boys and girls in all from problems vital to students but are designed to motivate student effort toward continued self-improvement long after the instruction has ended.

2. From an address by Howard Pyle, President, National Safety Council at a February, 1964 Regional Workshop of the President's Committee for Traffic Safety:

"We couldn't possibly be more convinced as working practitioners in this field that the efforts over the past quarter of a century to initiate and increase standard courses in driver education have been a major factor in our ability to bring the traffic accident death rate down from 12 per 100 million vehicle miles in 1941 to 5.3 in 1962."

**EXHIBIT III: COST ESTIMATES**

1. Funds to make driver education a reality for all eligible boys and girls in all states of the United States:

Year	Number of live births <sup>1</sup>	16 years of age	Total	Cost (in millions) <sup>2</sup> proposed federal share (at 50 percent)
1950.....	3,632,000	1966-67	\$181.6	\$90.8
1951.....	3,823,000	1967-68	191.1	95.6
1952.....	3,913,000	1968-69	195.6	97.8
1953.....	3,965,000	1969-70	189.2	99.1
1954.....	4,078,000	1970-71	203.9	101.9
1955.....	4,104,000	1971-72	205.2	102.6
1956.....	4,218,000	1972-73	210.9	105.4
1957.....	4,308,000	1973-74	215.4	107.7
1958.....	4,250,000	1975-76	212.5	106.2
1959.....	4,282,000	1976-77	214.6	107.3

<sup>1</sup> "Natality" (1950-56), National Office of Vital Statistics, U.S. Public Health Service, U.S. Department of Health, Education, and Welfare, 1959. (Last 3 years estimates obtained by telephone from same source.)

<sup>2</sup> Based on estimated cost per student of \$50 for complete a driver education program. (Classroom and laboratory instruction.)

\* "Policies and Practices for Driver and Traffic Safety Education."

2. Funds for research aimed at the improvement of instruction:

Year	Total <sup>1</sup>	Cost proposed Federal share (at 100 percent)
1966-67.....	\$1,876,000	\$1,876,000
1967-68.....	1,976,000	1,976,000
1968-69.....	2,016,000	2,016,000
1969-70.....	2,042,000	2,042,000
1970-71.....	2,099,000	2,099,000
1971-72.....	2,102,000	2,102,000
1972-73.....	2,159,000	2,159,000
1973-74.....	2,204,000	2,204,000
1974-75.....	2,175,000	2,175,000
1975-76.....	2,196,000	2,196,000

<sup>1</sup> 10 percent of the estimated total for driver education, teacher preparation, and supervision.



### 3. Funds to help assure improved preparation of teachers of driver and traffic safety education:

Year	Total	Cost proposed Federal share (at 50 percent)
1966-67.....	<sup>1</sup> \$5,000,000	\$2,500,000
1967-68.....	5,000,000	2,500,000
1968-69.....	5,000,000	2,500,000
1969-70.....	5,000,000	2,500,000
1970-71.....	5,000,000	2,500,000
1971-72.....	<sup>2</sup> 4,000,000	2,000,000
1972-73.....	4,000,000	2,000,000
1973-74.....	4,000,000	2,000,000
1974-75.....	4,000,000	2,000,000
1975-76.....	4,000,000	2,000,000

<sup>1</sup> Based on the assumption that 5 years would be needed 1966-67 to 1970-71 to prepare 25,000 additional teachers at \$5,000 per year. Average cost of \$1,000 per teacher.

<sup>2</sup> Based on the estimated needs of student increase and teacher replacement of 4,000 teachers per year at \$1,000 per teacher.

### 4. Funds for State-level supervision of driver education.

Year	Total	Cost proposed Federal share (at 50 percent)
1966-67.....	\$1,000,000	\$500,000
1967-68.....	1,000,000	500,000
1968-69.....	1,000,000	500,000
1969-70.....	1,000,000	500,000
1970-71.....	1,000,000	500,000
1971-72.....	1,000,000	500,000
1972-73.....	1,000,000	500,000
1973-74.....	1,000,000	500,000
1974-75.....	1,000,000	500,000
1975-76.....	1,000,000	500,000

Based on an allocation of \$20,000 per year per State.

### SELECTED BIBLIOGRAPHY: DRIVER EDUCATION

- Aaron, James E., and Strasser, Marland. *Driver and Traffic Safety Education*. New York: The Macmillan Company, 1966.
- American Automobile Association. *Sportsmanlike Driving*. Fifth Edition. New York: McGraw-Hill Book Company, 1965.
- American Automobile Association. *Teaching Driver and Traffic Safety Education*. New York: McGraw-Hill Book Company, 1965.
- Brody, Leon, and Stack, Herbert J. *Highway Safety and Driver Education*. New York: Prentice-Hall, Inc., 1954.
- Center for Safety Education, New York University. *Man and the Motor Car*. Sixth Edition. Prentice-Hall, Inc., 1964.
- Eno Foundation for Traffic Control. *Traffic Quarterly*. Saugatuck, Connecticut: The Foundation (quarterly).
- Halsey, Maxwell, and Kaywood, Richard. *Let's Drive Right*. Third Edition. Chicago: Scott, Foresman and Company, 1964.
- National Conference on Driver Education. *Policies and Practices for Driver and Traffic Safety Education*. Washington: NEA National Commission on Safety Education, 1964.
- National Conference on Teacher Preparation and Certification in Driver and Traffic Safety Education. *Policies and Guidelines for Teacher Preparation and Certification in Driver and Traffic Safety Education*. Washington: NEA National Commission on Safety Education, 1965.
- National Safety Council. *Accident Facts*. Chicago: The Council (annually).
- National Safety Council. *Research Review*. Chicago: The Council (quarterly).
- National Safety Council. *Traffic Safety*. Chicago: The Council (monthly).
- NEA National Commission on Safety Education. *Safety—Administration, Instruction, Protection*. Washington: The Commission (bimonthly).

NEA Research Division and NCSE. *Checklist of Safety and Safety Education in Your School*. Washington: NEA National Commission on Safety Education, 1963.

Policies and Practices for Driver and Traffic Safety Education. These policies and practices related to programs for high school and college students, adults, and out-of-school youth, were developed by the 1963 National Conference on Driver Education. Sound guides to administration and instruction in the various types of programs are included, as are recommendations pertaining to state education departments, teacher certification, and research in driver education. (1964) 72 pages.

Policies and Guidelines for Teacher Preparation and Certification in Driver and Traffic Safety Education. Recommendations adopted by a national conference on the curriculum for professional preparation and growth, college and university responsibilities, and state education department responsibilities. (1965) 52 pages.

Stasser, Marland, et al. *When You Take The Wheel*. River Forest, Illinois: Laidlaw Brothers, 1963.

Traffic Institute, Northwestern University. *Traffic Digest and Review*. Evanston, Illinois: The Institute (monthly).

The CHAIRMAN. Mr. Springer.

Mr. SPRINGER. How many States now have driver education courses at the high school level?

Mr. MARSHALL. All 50.

Mr. SPRINGER. Are those all financed by the States?

Mr. MARSHALL. No, sir. Thirty States. Vermont just this week passed special support for driver education. Thirty States now provide funds to assist the local school districts.

Mr. SPRINGER. In the other 20 States, then, this is done as a part of high school education with no supplementary funds; is that right?

Mr. MARSHALL. Yes, sir. Basically, it comes out of the State foundation program in the other 20 States and from local funds, just as in other courses the salaries for teachers and equipment, and so forth.

Mr. SPRINGER. It comes out of State funds or local funds?

Mr. MARSHALL. Both.

Mr. SPRINGER. That is in the other 20 States?

Mr. MARSHALL. Yes, sir.

Mr. SPRINGER. Thirty States provide supplemental funds?

Mr. MARSHALL. Yes, sir.

Mr. SPRINGER. But all 50 of the States have driver education at the local high school level?

Mr. MARSHALL. Yes, sir.

Mr. SPRINGER. In all of these States is this required?

Mr. MARSHALL. No.

Mr. SPRINGER. It is voluntary in all 50 States?

Mr. MARSHALL. This varies. We have a publication that is going to press that reviews this very point (State Support for Driver Education). Some States give a youngster a license 5 months to 2 years earlier if he has completed a course in driver education. The State of California requires driver education, the classroom part but not the in-car practice part. There are various recommendations on this point.

Mr. SPRINGER. How many of them do not require actual driver training in the automobile?

Mr. MARSHALL. I believe the answer would be the same for classroom instruction and in-car training for the practice driving instruc-



tion except for California where they require the classroom part but the in-car instruction is optional.

No State actually requires this of all students, as far as I know, either classroom or in-car practice.

Mr. SPRINGER. In other words, this is all voluntary on both classroom instruction and driver training?

Mr. MARSHALL. Yes, sir; with the exception I mentioned, as far as I know.

Mr. SPRINGER. Do all of them have class rating on this?

Mr. MARSHALL. Yes; the reports that I am familiar with.

Mr. SPRINGER. All 50 of them?

Mr. MARSHALL. Yes, sir. This may mean one or two high schools in a State like Alaska where they do not have many students. But they have driver education in Alaska.

Mr. SPRINGER. If they take driver education in the schoolroom, they are not required, then, to take driver training in the automobile?

Mr. MARSHALL. In most of them it is a combination. The in-car practice is a laboratory phase. That may take one of several patterns. You may have a restricted driving area, where one instructor, through radio controls and other devices, has a number of cars on a range at one time.

In addition, that system may have simulators where up to 25 students are practicing emergency situations and other aspects of driving. Finally, in all cases, they end up in the actual car out on the streets, highways, and freeways.

Mr. SPRINGER. Could you give me the variation in the hours or days of training in the various States? What does it range from?

Mr. MARSHALL. The program ranges from a full semester in a number of cities now to the minimum of 30 and 6. Where you would take a course in mathematics for a full semester, driver education is the same way. The minimum recommended by the National Conferences is at least 30 hours of classroom instruction and 6 hours of individual in-car practice or instruction.

Mr. SPRINGER. Is 30 hours approximately one semester?

Mr. MARSHALL. No, sir. Ninety hours would be one semester, on an average.

Mr. SPRINGER. In other words, they ought to have one-third of a semester?

Mr. MARSHALL. Yes, sir. But the national recommendation now is for a full semester.

Mr. SPRINGER. For a full semester?

Mr. MARSHALL. Yes, sir. But if the system cannot meet that standard then at least a minimum of 30 and 6 should be offered.

Mr. SPRINGER. Mr. Chairman, I believe that is all. Thank you.

Mr. MOSS. Mr. Chairman?

The CHAIRMAN. Mr MOSS.

Mr. MOSS. Do you envision driver training as an elective in high school or as a required subject?

Mr. MARSHALL. The recommendation from the National Conferences, which is our policy statement, is if a young person is going to have a driver's license before age 18, we believe he should complete driver education and then we think he could obtain the license at age 16.

Mr. MOSS. In other words, you envision it as a required subject?

Mr. MARSHALL. Not required, sir, but if he wants a license he may obtain it 2 years earlier by completing driver education.

Mr. MOSS. Do you think if there is to be a Federal program it should be directed only at the students in the high schools or should there be a program broadly enough conceived to provide driver training for every person as a precondition to applying for a driver's license?

Mr. MARSHALL. In my opinion, I think this would be a good recommendation. Every new driver should have this experience.

Mr. MOSS. In other words, it should be much broader than just training in the high school?

Mr. MARSHALL. Yes, sir. In this statement we are talking about high school driver education, but I personally believe every new driver should complete a course in driver education.

Mr. MOSS. You have given a lot of thought to training and education of the driver. Would you have periodic refresher courses?

Mr. MARSHALL. This would certainly be fine, as we do in many other areas of engineering, education, and so forth, if it were possible.

Mr. MOSS. Thank you.

The CHAIRMAN. Are there any further questions?

If not, Mr. Marshall, we want to thank you for coming and giving us the benefit of your views. I think this has been very helpful and enlightening in our consideration on this very important legislation.

Mr. MARSHALL. Thank you very much.

The CHAIRMAN. We have with us this morning one of our colleagues who we will hear from at this time, Mr. McCarthy of New York.

**STATEMENT OF HON. RICHARD D. MCCARTHY, A REPRESENTATIVE  
IN CONGRESS FROM THE STATE OF NEW YORK**

Mr. MCCARTHY. Thank you very much, Mr. Chairman.

First of all, I want to compliment you, Mr. Chairman and members of your committee, for taking up this very important subject. I particularly want to mention my friend and colleague from Georgia, Mr. Mackay, who has stimulated my interest in this matter.

I am sure that all of us, particularly since we fly so much, are most interested when we read of an air crash. I know I am, having made 37 trips home since I came down here. We are appalled at this carnage. Thus far this year, 746 people have been killed in air crashes here in the United States.

But in the same period an estimated 2,500 people, Americans, have been killed in highway crashes. Yet we don't seem to evince the same amount of distress over these figures.

I was also impressed with another figure: that we are also most saddened and anguished over the fatalities in Vietnam. Thus far, 2,400 American boys have been killed in Vietnam. During the same period, however, right here in the United States, more than triple that num-



ber of American servicemen, or 7,500, have been killed right here in the United States in traffic accidents.

The statistics of human carnage are staggering. More than one and a half million Americans have been killed on our highways. This is incredible particularly when we realize that this figure is more than double the number of battlefield deaths in all wars in which the U.S. was involved from the revolution to Vietnam. Highway fatalities have climbed to the 1,000-a-week level and last year alone totaled 49,000.

This tragic human loss is compound by three million injuries a year by the \$8 billion annual loss caused by traffic accidents.

We can no longer afford to allow these losses both in human lives and in financial set-backs to continue. What will keep these figures from skyrocketing in the years ahead?

I think these figures, among others, serve to point up the urgency of this matter. The President has stated that if we don't do something, one out of every two Americans can expect some time in his lifetime to be involved in a serious traffic accident.

The Congress of the United States should, in my opinion, enact meaningful legislation to establish Federal standards with which all drivers and automobile manufacturers must comply. This is one of the chief means by which we can halt continued mass slaughter.

I would like to suggest that the legislation you are writing contain four major areas:

1. Grants to the States to establish stiffer uniform driver training and licensing, advance traffic control, stricter policing.

2. That safety criteria be required in all automobiles manufactured in this country or imported into this country.

3. The construction of safer highways. I know that this is not a matter of direct concern to your committee, but I would envision this coming out of the fourth recommendation, which would be for a National Traffic Safety Agency to, in turn, establish a National Traffic Safety Center where research would be conducted into accidents and the circumstances surrounding them, and information compiled and published by one single national agency.

4. Creation of a new Federal safety agency and establishment of a national safety center to conduct highway safety research and development. A Federal safety agency would conduct research and engineering studies as well as studies of pertinent laws and regulations in order to coordinate a concentrated effort to establish national traffic safety standards and improve traffic safety.

A national safety center would conduct research and tests, and thus examine every facet of the traffic accident phenomena in order to ascertain the principal causes of traffic accidents and injury and to identify the most effective and practical means for their prevention.

To conclude, I would like to single out two major areas that I think are deserving of consideration. One is an all-out effort to ban irre-

sponsible and incompetent drivers from the highway. In this connection, there is a dearth of solid, factual information. However, as an ex-newspaper reporter, I will never forget, and I am sure that any newspaper reporter who has ever covered police would verify this, that you could count on it that every Monday morning you could just plan that there would be a roundup story of traffic accidents over the weekend.

In my case, it was in the Buffalo area. It never failed that almost all of them, while we couldn't write this into our stories, involved alcohol. The traffic officers who were there would tell us "Well, the driver was drunk."

"Well, he is dead. How did you know that?"

"Well, you just knew it from the smell."

Obviously, you couldn't print that because even with a deceased person this could cause the possibility of libel.

But it is clear on weekends the time of the usual accident is around 3 a.m., or shortly thereafter, after the restaurants that serve alcoholic beverages in New York State close, and usually they were young people on their way home.

So you would have a roundup story every Monday morning of all the accidents that had occurred, usually in the early hours of Saturday and in the early hours of Sunday morning. It seems to me that an all-out effort ought to be made to banish competent and irresponsible drivers from the highway.

I also in this case remember my grandmother at the age of 87 whose vision was failing, and who really was a hazard to anybody, who was still driving an automobile. As far as I know, in New York State to this day if a person has maintained his license over the years there is no stipulation that you couldn't drive until you were 103.

Finally, I would say more frequent testing of vehicles. While I would certainly urge that safety criteria be built into the cars, I also think that there ought to be national standards on the testing of vehicles that are presently on the highway, more frequent testing.

Those are the main points, Mr. Chairman.

The CHAIRMAN. Thank you, Congressman McCarthy. I believe you have made a very fine presentation.

How do you rate the motor vehicle as contrasted with the driver? Would you rate them about equal in the safety problem, or one higher than the other?

Mr. McCARTHY. Again, I think that the lack of verifiable data on this is one of the alarming things about this. The information that is collected frequently isn't available to the public.

My own experience, firsthand, would be as a newspaperman, and this is rather cursory, but it would seem that it was the driver, mainly, at fault in the accidents where I had personal knowledge over a period of time.

The CHAIRMAN. Do you think, then, this legislation should provide for a factfinding group that could correlate all of the statistics and facts in relation to accidents?



Mr. McCARTHY. Very definite. That would be in the National Safety Center.

The CHAIRMAN. Thank you.

Mr. Macdonald.

Mr. MACDONALD. No questions. I would like to compliment the gentleman on his fine statement.

The CHAIRMAN. Mr. Springer?

Mr. SPRINGER. I have no questions. I think it is a very excellent statement that Mr. McCarthy has presented.

Mr. McCARTHY. Thank you.

The CHAIRMAN. Mr. Moss?

Mr. MOSS. Mr. Chairman, I also want to commend our colleague for his statement. I would like to ask one question, however.

You mentioned your experience as a newspaper reporter, and from that experience you were led to regard the driver as the major problem. I would not want to minimize the significance of driver responsibility in accidents, but is it possible that you were dealing with drivers who were cited for some violation of law having been involved in an accident in most instances, or were you covering generally accidents where there were not citations for violations of law?

Mr. McCARTHY. Both. Sometimes the fatality wouldn't involve a citation for an infringement of the law, but my experience was that the officer who was on the scene would invariably tell us that "Well, they were drinking." We just couldn't print that in our stories.

Mr. MOSS. How many times did the officer or the traffic department cause the vehicle to be examined by an expert to determine its condition, and to try to establish a possible cause for the accident?

Mr. McCARTHY. Almost never. I can't recall one case.

I think you make an excellent point, Mr. Moss. We send out these teams of Federal investigators on airplane crashes, and in many cases they will laboriously and assiduously reconstruct the aircraft in order to find the flaws, the suspected flaws, in the aircraft which contributed to the crash. In traffic accidents we rarely do this.

Mr. MOSS. I have noted in recent years in my State, where we have had occasion to open many miles of freeways and highways constructed with every conceivable safety feature, and yet in a number of fatal accidents occurring on those beautifully engineered highways, persons traveling by themselves, not hitting anything coming in their lane, the car just seems to go suddenly out of control and there is a very serious accident.

The investigation, the physical examination of the vehicle, is totally inadequate. Don't you think it is something that requires the utmost attention?

Mr. McCARTHY. I do, definitely. There is a group at the Cornell Aeronautical Laboratory in my district where they have done exactly what you have said, to reconstruct the whole environment of a highway accident, a diagnosis of the vehicle and all the circumstances involved.

This is being done under grants from the automobile manufacturers association and the Department of Health, Education, and Welfare. They are doing just what you are suggesting. I think this is definitely needed, a diagnosis of accidents involving the drivers, the external circumstances, the time of the day and so forth, the events leading up to the accident, and the vehicle itself.

Mr. MOSS. Thank you.

The CHAIRMAN. Mr. Cunningham?

Mr. CUNNINGHAM. I am sorry I was called out of the room when our distinguished colleague testified. I have read his statement. There is much of it that I am interested in. I appreciate his interest in this subject.

Mr. MCCARTHY. Thank you.

The CHAIRMAN. Mr. Kornegay?

Mr. KORNEGAY. Thank you, Mr. Chairman.

I want to commend our colleague for making a very excellent statement here covering the areas that I believe to be important, the effort on the part of newspapers and law enforcement officials, those who have a direct responsibility in these areas, to impress upon the public what happened in the automobile accidents. So often these things are not presented.

They are distasteful, of course, but for those people like you and me who have seen and who know firsthand the great damage that is done is an element to which we should give consideration. Thank you.

Mr. MCCARTHY. Thank you.

The CHAIRMAN. Dr. Carter?

Mr. CARTER. No question, Mr. Chairman.

The CHAIRMAN. Mr. Van Deerlin?

Mr. VAN DEERLIN. I wish to commend our colleague, as others have done. He emphasizes something I have always felt; that there should be more newsmen sent to Congress.

The CHAIRMAN. Mr. Mackay.

Mr. MACKAY. Thank you, Mr. Chairman. I want to commend Congressman McCarthy for a very fine statement and bringing support to our efforts on this committee.

The CHAIRMAN. Mr. Gilligan?

Mr. GILLIGAN. No questions, Mr. Chairman, but an additional commendation to our distinguished colleague from New York for his testimony.

The CHAIRMAN. Mr. Farnsley?

Mr. FARNSLEY. No questions.

The CHAIRMAN. Mr. Pickle?

Mr. PICKLE. No questions, Mr. Chairman. I am very glad to see our colleague with us this morning.

Mr. MCCARTHY. Thank you.

The CHAIRMAN. Mr. McCarthy, as one of the Members who has filed a bill on highway safety, I want to commend you and thank you for coming and giving us the benefit of your views. This is one approach we hadn't heard before. It all goes to make the record. We certainly want to hear all that we can in studying this legislation. Thank you again.



Mr. McCARTHY. Thank you, Mr. Chairman.

The CHAIRMAN. We shall hear next from our colleague from Tennessee, the Honorable Richard Fulton. You may proceed Mr. Fulton.

**STATEMENT OF HON. RICHARD FULTON, A REPRESENTATIVE IN  
CONGRESS FROM THE STATE OF TENNESSEE**

Mr. FULTON. Mr. Chairman. One of the first questions asked by this committee was, "What percentage of accidents in this Nation are attributable to the human factor?"

The reply, as it was reported to me, was "I don't know."

Gentleman, I propose that we find out.

I strongly urge that we use the valuable opportunities provided by this hearing to determine the most effective plan of attack against death on our highways and that we apply all of this information, fully and forcefully.

While this committee dissects all known aspects of the factors of highways, automobiles, enforcement, safety in general, my proposal is to recommend a Presidential Study Commission for the purpose of seeking all authentic data related to causation of accidents, including the driver; to seek information currently available from private and Government sources, and to correlate this data, applying its full conclusions to the entire program.

I submit that a complete research analysis, including the relationship between the driver, the car, and the accident, be the function of the Presidential Study Commission.

I would implore this investigative body utilize all possible facts to guarantee the best solution, that we do the whole job and get all the facts.

We now know that road conditions add to causation of accidents. We need more data on this, and to know if there is any driver inability or other factors which may be significant.

We now know that there are accidents related to mechanical failure. We need more data on this, and to know if driver inability or other factors may be significant.

We now know that a lack of safety features has contributed to this carnage. We need more data on this, and to know if there is any driver inability or other factors which may be significant.

We now know that protruding fixtures, tires, car design, and many other elements contribute to a growing death toll. We need more data on this, and to know if driver inability or other factors may be significant.

I go on record to state that we need answers to the question: Do we know enough about the man who will be using or guiding all of the improvements so far discussed in these and other hearings and investigations, and if this factor needs diagnosis similar to the myriad other categories.

There are endless statistics concerning the murder by motor in America. One of the most shocking and least publicized came from Memphis in 1959. In examining 16,903 accidents, Dr. W. David Dunavent, then chairman of the traffic safety committee of the Shelby

County Medical Association, and in full cooperation with public authorities, established documented evidence that 85 to 90 percent of these accidents were identified as having been caused by "driver failure."

Gentlemen, this is a fact that must not be ignored. It should motivate the assignment of the Presidential Study Commission to insure a complete investigation of causation before a remedy is recommended.

Howard Pyle, president of the National Safety Council, has challenged our determination, also. He has stated "that vehicle failure and mechanical faults and design imperfections account for fewer than 10 percent of the Nation's accidents."

This claim conforms in shocking accuracy with that of Dr. Dunavent.

Pyle concludes, "However, accident reports and statistics are so primitive that no reliable estimate to support my statement seems feasible."

This is the point of my concern. This is the subject of my proposal. This is where renewed and thorough research should now be concentrated.

Gentlemen, these facts must not be ignored. It should motivate this committee to a complete investigation of causation before a remedy is recommended.

Regardless of manufacturing or engineering feats, the statement of General Motors chairman Frederick Donner is significant. He agrees with Chrysler's H. E. Cheesbrough who claims there will never be a completely safe car.

And there are two additional points of importance: enforcement and licensing.

A New Englander underlined a problem, pointing to imbalance in enforcement and licensing, when he said, "If he had chased me down with a butcher knife or a shotgun, they'd have called it manslaughter and had him up before a jury. But he just chased me down with a 2-ton car, killed my wife and my son, and they let him go."

Driver qualifications and licensing come under close scrutiny when we admit that among the drivers guiding some 90 million combustion machines around this Nation today, too many were licensed at age 16 and years later continue to drive automobiles, unchecked over this period for physical or mental defects which may have developed, affecting, in terms of life or death, your child or mine, your life or mine.

There is merit to the idea of reexamination of drivers.

The unbelievable price of 1.5 million lives has been invested in this love affair between Americans and their cars. This dramatic result demands the fullest, complete, immediate fight against this series of tragedies which are condoned only because they happen little by little, life by life.

And yet, our major concern is war. And thus the question I submit is held in greater significance, because since the beginning of U.S. participation in military combat, our total loss in lives has accounted for nowhere near the highway fatality total. But it is all of 650,000 souls.



The question is, do we know enough about the relationship between the driver, his car, and the accident.

If we do not know all the facts contributing to causation of accidents, I propose we find out immediately. And act accordingly.

I concede such a study will be costly. And will consume time. But I am convinced the price will not be equal to 50,000 American lives.

The CHAIRMAN. Thank you, Mr. Fulton.

Is Mr. Hansen present?

If not, this will conclude our hearings for this morning. We will stand recessed until tomorrow morning, when Secretary Connor and his group will appear before the committee at 10 o'clock.

(Whereupon, at 11:40 a.m. the committee recessed, to reconvene at 10 a.m., Thursday, March 17, 1966.)





## TRAFFIC SAFETY

---

THURSDAY, MARCH 17, 1966

HOUSE OF REPRESENTATIVES,  
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,  
*Washington, D.C.*

The committee met at 10 a.m., pursuant to recess, in room 2123, Rayburn House Office Building, Hon. Harley O. Staggers (chairman) presiding.

The CHAIRMAN. The committee will come to order.

Yesterday and the day before we held hearings on the Traffic Safety Act of 1966, H.R. 13228, and we are very fortunate to have with us this morning the Secretary of Commerce, Mr. Connor, and his assistant, Mr. Alan Boyd, Under Secretary for Transportation.

We are very happy to have you with us on this very important subject, and to have your views, Mr. Secretary.

**STATEMENT OF HON. JOHN T. CONNOR, SECRETARY OF COMMERCE;  
ACCOMPANIED BY ALAN S. BOYD, UNDER SECRETARY FOR  
TRANSPORTATION; HERBERT HOLLOMON, ASSISTANT SECRETARY  
FOR SCIENCE AND TECHNOLOGY; AND ROBERT E. GILES,  
GENERAL COUNSEL**

Secretary CONNOR. In addition to Mr. Boyd, I have with me Dr. Herbert Hollomon, Assistant Secretary for Science and Technology, and Mr. Robert E. Giles, our general counsel.

The CHAIRMAN. We are glad to have them with us.

Secretary CONNOR. Mr. Chairman and members of the committee, I appreciate this opportunity to appear before your committee in support of H.R. 13228, entitled the "Traffic Safety Act of 1966." This bill embodies major elements of the traffic safety program recently recommended by the President in his special message on transportation.

In his message to the Congress, the President said:

Last year the highway death toll set a new record. The prediction for this year is that more than 50,000 persons will die on our streets and highways—more than 50,000 useful and promising lives will be lost, and as many families stung by grief.

The toll of Americans killed in this way since the introduction of the automobile is truly unbelievable. It is 1.5 million—more than all the combat deaths suffered in all our wars.

No other necessity of modern life has brought more convenience to the American people—or more tragedy—than the automobile.

The President also said:

The carnage on the highways must be arrested \* \* \* we must replace suicide with sanity and anarchy with safety.

To meet this national crisis, the President proposed in this message a broad range of action steps which must be taken to reverse the needless and wasteful tragedy which daily occurs on the highways across our Nation.

The Traffic Safety Act of 1966, which is now before this committee, is the keystone of the President's proposals. This proposed legislation is based on an analysis of the traffic accident problem, a survey of existing traffic safety knowledge, an assessment of State and local government and industry resources available to meet safety needs, and a determination of the appropriate Federal role in providing leadership for a traffic safety program and in supporting State safety efforts.

The three major elements of the 6-year, \$700-million program proposed under H.R. 13228 are:

1. Authorization for the Secretary of Transportation to conduct research and testing in the relationship of vehicle performance to accidents in order to improve nationwide safety performance standards for all vehicles and their components and to provide mandatory safety performance standards if he finds that voluntary standards are not satisfactory.

2. The establishment of a national highway safety research and test center, and research in all aspects of highway safety at the Federal level, including support for training grants and scholarships to institutions throughout the country.

3. Federal grants to assist the States in developing their own comprehensive highway safety programs under standards approved by the Secretary of Transportation.

The President also outlined in his message what can be done in addition to proposals in the legislation now before this committee, including the following steps he is taking under existing law:

He is assigning responsibility for coordinating Federal highway safety programs to the Secretary of Commerce, who is to establish a major highway safety unit within the Department of Commerce. These responsibilities ultimately would be transferred to the Department of Transportation.

He is requesting increased funds for research, accident data collection, improved medical service, driver education and testing, and traffic control technology.

He is directing the Secretary of Health, Education, and Welfare, in cooperation with the Secretary of Commerce, to initiate demonstration projects for more effective emergency care and transportation of the injured to be carried out in full cooperation with State, local, and private officials.

He is directing the Secretary of Commerce to establish additional accident investigation teams to gain a better understanding of the causes of highway accidents.

He is asking the Administrator of the General Services Administration, in cooperation with the Secretary of Commerce, to begin a detailed study of the additional vehicle safety features that should be added to the Federal Government's vehicles.

I should now like to discuss briefly the individual aspects of the proposed legislation, emphasizing, however, that each is an integral part of a coherent, balanced total program.



## MOTOR VEHICLE SAFETY STANDARDS

Title I of H.R. 13228 would give the Secretary of Transportation authority to investigate and to develop safety performance criteria for motor vehicles and their components.

With approximately 75 million passenger cars in use today, automotive transportation accounts for an estimated 85 percent of the Nation's personal transportation activity. By most measurements it also is the most hazardous form of transportation.

Automotive transportation remains the only mode of transportation which in the main is not subject to Federal safety standards. The Interstate Commerce Commission regulates common carriers, including automotive vehicles used to transport passengers. The General Services Administration sets safety standards for vehicles it purchases. The Department of Defense does the same for military vehicles.

But automobiles sold to the general public are subject to Federal standards only in an incidental way. Brake fluid and seat belts must meet Federal safety standards under Public Laws 87-637 and 88-201. There are also a number of Federal specifications which may be used in the purchase of automotive spare and replacement parts and materials.

Several States have imposed safety regulations on automobiles from time to time requiring the inclusion of certain safety devices in automobiles sold in the State. In addition, local traffic regulations, such as those having to do with the use of chains, snow tires, and ice lugs, have the effect of controlling vehicular equipment and affecting safety. With few exceptions, existing automotive safety standards have limited scope and limited mandatory application or are advisory and voluntary in nature.

Most of the standards of the voluntary use category are those developed by the committees of the Society of Automotive Engineers. They are arrived at by consensus and are minimal in nature. There are no apparent procedures to compel their adoption, monitor their use or evaluate their effectiveness except through the initiative of individual committee members.

Because of the lack of any other technical source, States, interstate compacts, and GSA have tended to adopt SAE standards or modify them. In some cases, Government bodies have desired stronger requirements than have been provided by these standards and there is a growing tendency toward diverging requirements among those States adopting mandatory requirements for automotive safety equipment.

In this voluntary method of standards writing, there is no systematic means for determining which safety standards it is important to develop. The technical basis for performance requirements are based upon existing practices in which there is no apparent correlation with a methodical and priority approach to the safety problem.

The automobile industry has, from time to time, introduced safety and protective devices, and has improved the safety performance characteristics of its vehicles. However, the modern vehicle is a highly complex piece of equipment, so much so that it is extremely difficult to compare the inherent safety of one make and model with that of another.

Such comparisons are virtually out of the question for the average individual purchaser, thereby eliminating the inherent safety of a vehicle as a decisive factor in his mind when he chooses the model he wants to buy. Industry achievements in the safety field could be encouraged if safety features are given more emphasis as competitive elements reflecting the broad public interest.

The American people have a right to expect their Government to help assure public health and safety. Private citizens as well as private business seem to be willing to accept reasonable laws to that end in many diversified fields of human activity. For example, the purity of food and the safety of drugs are protected by the Government, as I am well aware. Contagious diseases, particularly those coming from abroad, are reduced by compulsory vaccination and inoculation.

The manufacturer of automobiles is already subject to regulation by the recent amendment to the Clean Air Act for purposes of reducing air pollution. Under Federal leadership, minimum safety and life preserving equipment are required in even small motorboats. Private aircraft are subject to minimum equipment requirements and to periodic inspection and preventive maintenance.

Further, all levels of government have accepted responsibility for insuring, to some degree at least, safe performance of the other basic elements of the highway transportation system, that is, the drivers and the highways. Drivers are licensed and subject to numerous State and local laws and regulations intended to promote safety. And through Federal and State cooperation, safety design standards have been developed for highways, signs, signals, and other traffic control devices.

It seems clear that the safety of the vehicular element of the automobile system also is a matter of legitimate concern of government at some level. We think the Federal Government should assume a leadership role for at least two basic reasons: first, because a single, nationwide set of safety performance standards is most practical and desirable for the buying public and the manufacturers; and second, because the Federal Government is the only effective instrument for the development of national standards. Leadership requires comprehensive research and testing to acquire knowledge about how vehicle performance relates to accidents and to deaths and injuries resulting from accidents.

Accordingly, title I of H.R. 13228 would give the Secretary of Transportation authority to investigate and test the relationship between vehicle performance and accidents, and to develop safety performance criteria for motor vehicles and their components. It would give him discretionary authority to establish mandatory Federal safety performance standards, but not until 2 years after enactment of the act.

The 2-year provision would give the industry an opportunity to establish improved standards voluntarily, and also give the Government more time to make the necessary studies and conduct the needed research to determine exactly what standards are needed for protecting the public.

After 2 years and in the light of research and testing, the Secretary would issue standards if he finds: no vehicle safety standard exists;



existing performance standards provide inadequate safety protection; existing performance standards are not based on all necessary measurements; or there is insufficient compliance with existing performance standards to achieve adequate safety.

Any Federal performance standard issued by the Secretary of Transportation would preempt the field and bar a similar State standard.

Performance standards would be mandatory on manufacturers, with the effective date set by the Secretary to be not less than 180 days and not more than 2 years after issuance; and they could be enforced by injunction, seizure, and civil penalties.

Standards would apply to vehicles imported into the United States, as well as those manufactured here.

It should be emphasized that the standards contemplated in title I are for the safety performance of vehicles, but not the manner by which the manufacturer achieves the specified performance. The Federal Government should not enter into the design of vehicles, nor has it the desire or the competence to do so.

Any standards advanced by the Government will specify the required safety performance, but not detailed design specifications for meeting the need. Undoubtedly safety performance requirements will influence design or engineering decisions in some instances, as, for example, in acceleration characteristics, but design and engineering standards, as such, would not be in Federal standards.

The Secretary would be concerned with the measurable performance of a braking system, but not any of its design details. The situation is analogous to a building code that specifies the minimum load-carrying characteristics of structural members of a building wall, but leaves the architect free to choose his own materials and design.

The adoption of mandatory standards by the Federal Government would not stifle innovation in product design. Thus, the manufacturer will not be hampered in his vehicle styling, provided only that the product he ultimately offers the consumer meets or exceeds the established safety performance standards.

Thus, performance standards put into effect become public interest goals for individual designers and manufacturers to meet. They encourage innovation and improved designs, as well as the minimum safety requirements, but always in the public interest.

The authority to set preemptive national standards, as noted earlier, would be a standby authority to be exercised at the discretion of the Secretary under statutory criteria. Such actions should be subject to judicial review, and a straightforward method of review is provided for in title I, section 103.

Title I further recognizes that to accomplish the purposes of the act, that is, to reduce the incidence and severity of accidents, Federal standards must be based on objective research. Therefore, section 104 authorizes the Secretary, in cooperation with other departments and agencies, to undertake appropriate research related to motor vehicle safety and motor vehicle safety standards.

The CHAIRMAN. Would the gentleman yield at that point?

Secretary CONNOR. Yes, Mr. Chairman.

The CHAIRMAN. I would like to say that I and another member of the committee will have to go before the Rules Committee at this

point. I don't want you and your associates to think we are running off, because I know of no piece of legislation more important to America than what we are considering here today.

We will be back just as soon as we can. But that is the procedure—that we have to appear over there on another bill in behalf of international health. As soon as we have finished with the Rules Committee, we will proceed. I do consider this one of the most important bills before this Congress.

Secretary CONNOR. Thank you, Mr. Chairman.

It is apparent that a major research effort will be required so that the Government position on any performance standard is based on sound research findings, its own as well as the work of others. This means that scientists and engineers, both in and out of Government, should identify and analyze motor vehicle failures and malfunctions that lead to accidents, and that, in the accident, contribute to killing or maiming the occupants.

All available information derived from accident investigation, controlled research, and vehicle testing must be analyzed to isolate, identify, and understand the accident and injury causing elements. Even reconstruction or simulation of the dynamics of the accident may be necessary and desirable, as well as other supplemental tests and investigations. Much of this work, particularly verification and elaboration of results produced elsewhere, would best be performed by laboratories independent of the manufacturer; for example, by the National Bureau of Standards.

At the present time, aside from the efforts of the automotive industry and a few competent but inadequately supported university research groups, very little research is being done on vehicle safety. The National Bureau of Standards has performed tests on tires, and is performing tests on brake fluids and seat belts to lead to improvement of Federal standards which have been issued, and limited research programs involving the vehicle to some extent are being pursued by the Bureau of Public Roads and the Public Health Service. But an adequate Federal role in vehicle safety research in yet to be realized.

In pursuing this objective, section 105 of title I authorizes cooperation among Federal agencies, State or other public agencies, businesses, universities, or other institutions. Section 106 authorizes the Secretary to set up training programs to establish necessary expertise to support programs under title I, and section 113 requires the Secretary to utilize existing facilities wherever practicable to avoid duplication.

To carry out the provisions of title I: Motor Vehicle Safety Standards, section 115 authorizes appropriations from the highway trust fund of \$3 million for fiscal year 1967, and an additional \$42 million for the fiscal years 1968 through 1972.

#### TRAFFIC ACCIDENT AND INJURY RESEARCH AND TEST FACILITY

As indicated previously, the Federal Government does not presently have an adequate research capability to meet the responsibilities which it would assume under this act. Its capability is inadequate both with respect to research facilities and technical manpower.



Although there are some Federal facilities capable of single types of tests or tests on single components, as in the National Bureau of Standards, or Department of Defense test tracks for military purposes, there is no test track where Federal scientists and engineers can make even the most elementary operational tests on vehicles, let alone conduct full-scale research on motor vehicles and the highway from a safety point of view.

The Bureau of Public Roads has been forced to resort to testing on sections of highways and airport landing strips before these were open for public use. In testing automobile odometers recently, the National Bureau of Standards had to use the public highways. There is no Federal facility or laboratory equipped and capable of testing the interaction of the vehicle interior and interior equipment with the occupants of a vehicle in the investigation of the "second collision," the impact of the occupant with the vehicle.

Test facilities in industry are considerable, but are used primarily in connection with product development in which vehicle and passenger safety is only one of the elements considered. Results are proprietary and, for competitive reasons, are not generally available. Furthermore, manufacturers' facilities hardly seem the appropriate place for the Government to conduct its research and testing on vehicle safety performance standards as well as other aspects of highway safety.

Laboratory facilities are needed where the Government itself can conduct systematic scientific research and evaluation of all safety performance characteristics of motor vehicles and motor vehicle components. The facilities must be suitably equipped and staffed to evaluate standards already in effect, as well as proposed deletions, changes, or additions of wholly new standards. Facilities are required to carry out these responsibilities.

In addition to research, development, and testing related to motor vehicle performance standards, these laboratory facilities are needed for studying improved geometric design of highways for increased safety, improved paving materials that reduce dangerous skidding especially in winter driving, better traffic control devices that reduce the chance of accident-producing driver errors, improved highway lighting for increasing night visibility, and finally the wide range of problems associated with driver performance and skills. Clearly, proper performance standards for vehicles and design criteria for the highway network can only be realized by taking into account the physical and psychological capabilities of drivers.

In short, some type of Federal facility is needed where the Government can conduct systematic, controlled research, development, and test activities related to all aspects of traffic safety. Title II would authorize a study of the needed facility or facilities and the planning, designing, and construction of such facilities. It would authorize appropriations of \$3 million from the highway trust fund for planning and feasibility studies, and so much as is needed for construction subject to later congressional approval of appropriations requested.

## HIGHWAY SAFETY PROGRAMS

The provisions of the Traffic Safety Act of 1966 discussed previously are only concerned with two aspects of the traffic safety problem—vehicle performance and needed research facilities. The remaining provisions of H.R. 13228 under title III cover other substantial parts of the highway and traffic safety problem. To provide comprehensive coverage, a Federal program must deal with (1) all factors leading up to highway accidents; (2) those relating to the nature and extent of personal injuries and property damage produced in accidents; and (3) the emergency care and other postaccident measures that can reduce the continuing effects of accidents.

The program covered in title III fulfills this need and provides authority for the Secretary to support highway safety programs, and undertake related research and development activities.

Our survey of present highway safety efforts throughout the Nation clearly shows that Federal, State, and local efforts have proceeded separately with little or no coordination and that major gaps and weaknesses exist in the programs that are underway. To correct these deficiencies will require substantially higher investment inputs by all levels of government working cooperatively under a coordinated, national program.

One of the first objectives of any Federal program must be to identify outstanding deficiencies, upgrade the quality of existing programs, and formulate new programs in needed areas. There is no clearly assigned responsibility for collecting and compiling accident data information needed to provide a basis for sound planning and interpretation of program needs.

In addition, there is a major deficiency in our fundamental knowledge of highway accidents for we have no clear understanding of accident and injury causation as a basis for establishing effective countermeasures. Increased attention must be devoted to, among other subjects, driver behavior and driver control, vehicle operating characteristics, and medical factors which have a definite impact upon highway safety.

A notable shortage of personnel adequately qualified by training and experience for professional work in highway safety has been a major constraint on expanded investigation of these fields of knowledge. Therefore, substantial investment in scholarship and training programs must be initiated immediately to increase the supply of technically competent personnel.

We know today that only 20 States have legislation requiring periodic inspection of vehicles. General experience indicates that vehicles inspected are more often than not deficient in components that are important to safety.

Our information on reliable driver testing procedures is inadequate for measuring the capability and quality of the driver; and additional work is needed to assure that sound, objective criteria are developed to cover medical aspects of driver licensure. Police training programs, including specialized studies in accident investigation, are established in 27 States. Similar training is needed in all States and Federal grants would be made available to support these programs.

The highway traffic accident is the top killer among the youth of our Nation. Nearly two-thirds of the increases in automobile accident



deaths in 1965 involved persons under 24 years of age. Only 45 percent of eligible students were enrolled in driver education courses in the Nation's secondary schools. Available evidence also shows that the beginning driver is likely to have more accidents than the experienced driver.

We need to assess driver education in our schools to evaluate curriculum content and assure that validated teaching techniques are employed. The above examples are indicative of some of the gaps and inadequacies that exist in our national safety effort.

It would be a disservice to say that nothing is being done at the Federal level to improve traffic safety. The Bureau of Public Roads and the Public Health Service have done valuable work in the major areas of traffic safety, but with only limited resources. We should also point to the contribution now being made to highway safety under the Federal-aid highway construction program. The Bureau of Public Roads has issued directives that all highway accident locations on the Federal-aid highway system are to be identified and these directives call for the State to formulate a safety program to correct these locations over a 4-year period ending in 1969.

Title III of H.R. 13228 has been proposed to provide necessary financial support for new corrective actions and to strengthen the limited programs now underway.

It would provide a 6-year program including (1) \$420 million in grants to assist the States in developing their own comprehensive highway safety programs under standards approved by the Secretary of Transportation; (2) an additional \$160 million for research and development in all aspects of highway safety at the Federal level, including support for training grants and scholarships to institutions throughout the country; (3) expansion in the scope and effectiveness of the Driver Register Service now maintained by the Bureau of Public Roads; and (4) assignment of high priority to the incorporation of improved standards and features with safety benefits in highway construction projects under the Federal-aid highway program.

For many years Congress has demonstrated its serious and continuing concern over traffic safety. Possibly the most significant of these actions was the enactment last year of section 135 of title 23, United States Code—the Baldwin Amendment.

By this measure Congress established and defined the Federal role of leadership for cooperating with the various State in development of their individual safety programs.

Under its provision, the States were urged to establish comprehensive highway safety programs in accordance with national standards approved by the Secretary of Commerce. This measure, however, established no financial basis for implementing safety programs.

Title III of the proposed Traffic Safety Act of 1966 would establish the means for carrying out the intent of Congress by authorizing assistance grants to the States.

The major elements of section 135, which provide that State highway safety programs:

\*\*\* should be in accordance with uniform standards approved by the Secretary, which standards shall include, but not be limited to, provisions for an effective accident record system, measures calculated to improve driver performance, vehicle safety, highway design and maintenance, traffic control, and

surveillance of traffic for detection and correction of high or potentially high accident locations—

would be retained.

However, the December 31, 1967, effective date for State safety programs as specified in existing section 135 would be deleted. This would recognize the dynamic and evolutionary nature of standards development, and would allow adoption and implementation of a particular standard whenever the efficacy of the standard is sufficiently established.

It should be reported, in this regard, that the development of standards as required by existing provisions of law is underway, and the target date for the initial issuance of standards is early autumn of 1966.

Section 303 of title III provides Federal assistance to the States by authorizing grants of \$40 million for fiscal year 1967, and an additional \$380 million for fiscal years 1968 through 1972.

The method for allocating these funds is spelled out in the newly proposed section 402 of title 23, United States Code. After deducting the necessary costs of administration, 75 percent of annual amounts would be apportioned to the States on the basis of population and 25 percent at the administrative discretion of the Secretary. This discretion would give the Secretary flexibility to provide additional moneys to States which have particularly promising innovative projects or to any State with a pressing need to improve one or another aspect of its total program.

Except for the apportionment formula, Federal funds under this section would be administered generally in the same manner as are the Federal-aid primary highway funds. That is, the 50-50 matching ratio would be applied except for the higher Federal-aid percentage in the States with a high proportion of Federal lands.

The Federal assistance provided in this section is not intended to match all funds spent by the States. It would serve, rather, more in the nature of "seed" money, or startup money.

In addition to Federal grant support to the States, title III also provides the means for the Federal Government actively to assist in the overall improvement of traffic safety through research and development.

The program, which the administration proposes in the new section 403 of title 23, United States Code, is comprised of three main components—research, development, and test and evaluation—and two other components that are dependent upon them—standards development and data collection. To support a greatly enlarged Federal research and development effort in all aspects of traffic safety, section 304 of title III authorizes appropriations of \$10 million for fiscal year 1967, and an additional \$150 million for fiscal years 1968 through 1972.

By comparison, the current fiscal year Government expenditures for traffic safety research and development total about \$5 million.

Research alone does not provide new safety devices or methods; rather, it provides the basis for their development, which is the translation of knowledge into real, operating systems and procedures.

This is the function of the development effort—to design new methods for crash protection; practical educational and training



devices; more efficient methods of treating the injured; new measures of safety performance; and new devices for making the vehicle safer to control, and for controlling traffic.

These include devices that can be manufactured by private industry, or administrative procedures that can be employed by local authorities.

A complete test and evaluation program must precede implementation of new safety procedures. Thorough and systematic evaluation, including cost-benefit analysis, reliability studies, and evaluation of user acceptability, is required to validate research results before they can be made operational.

To carry out this comprehensive program, complete research facilities authorized under title II of H.R. 13228 will support the broad research programs discussed above.

This, then, is the character of the research and development program that we propose. The goal is to produce significant safety improvements as rapidly as possible.

Today, no such program exists, either in Government, or industry, or institutions. It is incumbent on the Federal Government to act now to correct this deficiency and to produce the program needed to meet the Nation's traffic safety objectives.

In reviewing the financial aspects of the entire highway safety program, it should be noted that the nearly \$700 million in expenditures contemplated by H.R. 13228 would be financed through the highway trust fund.

It is the administration's position, however, that this expenditure should in no way encroach on the currently dedicated highway user revenues devoted to the Federal-aid highway program. Financing safety as well as financing expenditures entailed by the Highway Beautification Act of 1965, would be provided for by application of 1 percentage point of the present automotive excise tax to the highway trust fund.

As required, additional funds would be transferred from the general fund of the Treasury to the highway trust fund to meet expenditure requirements not met through dedication of the 1 percentage auto excise. The enabling revenue provisions are contained in two separate proposed bills, the Federal-Aid Highway Act of 1966 and the Highway, Airway, and Waterway User Act of 1966.

The proposed section 404 of title 23 United States Code, would codify and amend the National Driver Register legislation. The National Driver Register Service is now maintained in the Department of Commerce as a voluntary driver records exchange program participated in by all States, the District of Columbia, and four territories.

The Service permits the States to report to the Secretary on drivers who have had their driving privileges suspended or revoked because of a conviction involving a fatal accident or drunken driving, and to have access to such information centrally filed by all of the States.

This Service permits the States to prevent drivers who have lost their licenses in one State from nullifying the effectiveness of a State's laws by securing a license in another State without revealing their driving records.

Since 1961, this State-Federal voluntary driver records exchange program has developed to the point where today, on the average, over 44,000 inquiries are sent to the Register by the States each day. The Register mails positive replies to these inquiries within 24 hours of receipt of the inquiries.

Over 19 million searches have been made of the Register's computer file since 1961. This has resulted in over 111,000 reports of potential problem drivers being sent back to the States.

While the Driver Register Service is now a valuable aid to the States in their efforts to supervise effectively the licensing of drivers, its effectiveness is limited since it covers only summary reports of license suspensions or revocations where there is drunken driving or fatal accident involvement.

The proposed legislation would remove this limitation on the effectiveness of the Driver Register Service by authorizing the filing of reports on license denials as well as withdrawals of licenses, for whatever cause, except for withdrawals of less than 6 months based on accumulation of minor violations.

Section 404 also would make it clear that Federal agencies can participate in the Driver Register Service as part of their employee driver safety programs.

The amendment of the existing Driver Register Service legislation as proposed in section 404 should double the productivity of the Driver Register program within a short period with negligible, if any, increased costs.

Numerous bills on highway and traffic safety have been introduced during the 89th Congress. This demonstrates a keen awareness by Members of the Congress of the urgent need for an increased Federal role in traffic safety. Although these bills vary in scope and in detail, their cumulative coverage embraces such subjects as tire safety; development and testing of prototype passenger vehicles; publication of vehicle safety standards; federally aided highway safety programs administered within the Department of Commerce by a statutorily created National Traffic Safety Agency; statutory creation of a National Traffic Safety Research Center; and related features.

All of these bills support traffic safety objectives similar to those endorsed by the administration under the provisions of H.R. 13228.

The administration's program, as contained in H.R. 13228, in our view adopts the best features of these measures and provides a greater degree of program, organizational, and administrative flexibility for carrying out the Federal role.

For example, the President has already directed the Secretary of Commerce to establish a major highway safety unit under his jurisdiction which ultimately would be transferred to the proposed Department of Transportation.

The language of the administration bill broadly covers all aspects of vehicular safety specifically mentioned individually in other bills—for example, seat belts, steering wheels, brakes, doors, bumpers, fenders, and numerous other motor vehicle components.

We should not attack this problem on a piecemeal basis nor pretend that we have all the answers by precise earmarking of funding



resources to specific program areas. H.R. 13228 has been formulated to assist in meeting the total traffic safety needs of the Nation.

Mr. Chairman, the American people derive immeasurable benefits from our vast highway transportation system. Surely American industry, private enterprise, and initiative have brought to our land an affluence and convenience in highway transportation which is unequaled anywhere in the world.

We spend nearly \$100 billion a year for automotive transportation.

But there are some costs involved, some costs which we believe are entirely too high and which we believe should be and can be reduced substantially.

I am referring to the costs resulting from highway accidents. Each year there are over a 3 million personal injuries on our highways and about 50,000 people die each year from auto accidents. We cannot regard this as a necessary and unavoidable cost of having the best and most affluent transportation system in the world. Rather, this is not a necessary cost—it is a waste and a tragedy which can be reduced by a concerted commonsense effort on the part of government, at the Federal, State, and local levels, private industry, and on the part of the individual motorist himself.

The program that would be provided by this legislation would devote the needed emphasis and resources to all aspects of the highway safety program. It is based on the recognition that accidents often are caused by multiple factors. Rather, they are frequently the result of some failure of the system which includes the driver, his vehicle, and his environment (including the highway), or the interaction of all three.

It does not assume that any one of these elements is more important than the others, and it is not directed toward a panacea-type solution to the highway safety problem.

The approach of this legislation, besides being directed toward all elements of the traffic safety problem, would include the participation of all levels of the government—Federal, State and local—as well as industry and private organizations.

We believe that this approach is essential to an effective attack upon this major national problem. We have the most efficient and economical highway transportation system in the world. It quite probably is the world's safest.

It is not, however, as safe as our resources and technology could make it, and it is not as safe as our concern for the suffering and tragedy of so many thousands of Americans requires.

Thank you.

Mr. FRIEDEL (presiding). Thank you, Mr. Secretary. That is a very fine statement.

I have also sponsored a companion bill to H.R. 13228. I am very much concerned about traffic safety. There is one thing in the bill that I would like to have cleared up. Why does this bill call for repealing the laws on safety belts and brake fluid?

Secretary CONNOR. Mr. Chairman, the provisions of this bill, in effect, reaffirm the present statutory requirements for safety belts and brake fluid. They would be wrapped up in this legislation.

It is only that specific program authorized by those special programs that would be repealed. It is more a matter of form than of substance, Mr. Chairman.

Mr. FRIEDEL. I am not clear why they want to repeal these laws and leave such matters entirely to the Secretary who will handle all the standards. I think there will come a time that the Members of Congress would like to have this spelled out in the law, unless information is given to the committee as to why this should not be done.

Secretary CONNOR. As I understand it, it is a drafting problem. Perhaps Mr. Giles can explain it in more detail.

Mr. GILES. Mr. Chairman, as the Secretary indicated, it was purely what we thought to be a drafting problem. Those of us who worked on the language of the proposal were apprehensive that if we left those laws on the books without integrating them into this bill, and I am referring to title I particularly, that there could be some confusion.

For example, in title I deals with motor vehicle safety standards. The definition of a motor vehicle safety standard in title I means a minimum standard not only for motor vehicle performance, but also for motor vehicle equipment performance, which would apply to any type of equipment, which brake fluid, seat belts or whatever.

That is our explanation or our reason, purely as a drafting matter.

Mr. FRIEDEL. I imagine this question will be pursued.

Mr. GILES. Yes, sir.

Mr. FRIEDEL. Mr. Moss.

Mr. MOSS. Mr. Chairman, I have no extensive questioning at this moment. I do want to compliment the Secretary on his excellent statement, the emphasis on the urgency of the situation facing the Nation. I think that is most appropriate.

I find I am troubled, however, by the language on page 28 of the draft bill, section 307. I am inclined to envision a public interest servant by that highly restrictive language, touching upon the availability of information developed as a result of the expenditure of Federal effort and dollars to accumulate information on safety and on the whole scope of the proposed legislation.

Why is the end product, the detailed knowledge, so delicate that it can't be more freely available than is envisioned in this language?

Secretary CONNOR. Congressman Moss, we think that this limitation is needed if we are to get the full and frank cooperation from all participants in the relatively few of the countless highway accidents that could be investigated as a part of our research and study program.

As you know, the highway accident situation is one that usually leads to litigation, and the issues in a lawsuit are rather precisely framed. The lawsuit proceeds over a period of time.

The intent of this provision is to enable these investigating teams to get on the scene very quickly and to conduct interviews and analyses. The results may or may not be relevant in subsequent litigation. We think that in order to get the frankest discussion of the situation from the point of view of the basic causes of the accident, rather than any legal liability factor, that the reports that are given by people should be on a confidential basis so that the participants would not



be exposed by the type of investigation conducted here in any subsequent lawsuit.

The experience in similar situations has indicated that this is the most productive way of getting the full cooperation of everybody who might be involved in the situation.

Mr. DINGELL. Will the gentleman yield for a question?

Mr. MOSS. Yes.

Mr. DINGELL. Mr. Secretary, are you aware of the practice of most police departments in the country of preparing accident reports?

Secretary CONNOR. Yes, sir.

Mr. DINGELL. You are aware that these are public information?

Secretary CONNOR. Yes, sir.

Mr. DINGELL. I believe you are also aware of the fact that it is generally the attitude of the various police departments around the country that the fact that these happen to be public information does not particularly hamper the police department from getting the best possible facts and the fairest amount of cooperation possible from the persons concerned.

Secretary CONNOR. Yes, Congressman Dingell, this is right. But the type of investigation that is proposed here would be much broader and much deeper than is covered currently by these police accident report procedures. This would get into much deeper the question of all aspects of the particular accident and would be on a much more comprehensive scale.

Some of the issues involved might be relevant to any determination of the legal liability for the accident and the legal causation, but there would be also an investigation of other aspects that would not be so relevant.

We do believe that the cooperation of people would be much less if they were not assured that the reports they give were on a confidential basis.

You must realize what I have said before, that the intent here is not to investigate each and every accident throughout the country, since manpower and other resources would be a limiting factor.

So it would be a relatively small proportion that would be investigated.

This is analogous to the type of information that our Census Bureau collects from people on the same basis of confidentiality. Our experience there has indicated that you can get this full cooperation only if the people are assured that they are not going to get involved in situations when they give the full reports.

Mr. MOSS. Mr. Secretary, I might add I am not overly persuaded about the argument that you get more facts in dealing with people because you assure them of an anonymity. I think, sometimes you might get less candid comment under those conditions.

I might add that in 11 years as chairman of a subcommittee concerned with information and the availability of that information I have heard many arguments. I will have my subcommittee staff take a close look at this because it is my position at this time to greatly broaden the availability of the information developed in these programs.

I want you to be alerted to the fact that I have strong convictions it is not in the public interest to limit them as drastically as is envi-

sioned here. As I read the proposed language, the points raised by you and stressed by you as justification would be adequately dealt with if the language was concluded at the end of the period on line 8.

But the additional language, I sense, is intended to even deny to the appropriate committees of the Congress the availability of these reports. I think here we have a concurrent responsibility, that of the Congress, the representatives of the people, and of the executive department of the Government that is given a specified responsibility in a new field of governmental activity.

I haven't the slightest doubt that if we adopted this language and a committee sought the information that they would have great difficulty in getting it. Is that intended?

Secretary CONNOR. Yes, sir; it is intended for the protection of the people who give the information.

Mr. MOSS. I am more concerned, Mr. Secretary, with the protection of the public and I think that is achieved far more by this being public information.

Secretary CONNOR. Congressman Moss, we certainly welcome that kind of a consideration not only of this provision but of all other provisions. This is, as you know, not only important but complicated. We know that this committee will go into it in considerable detail because of its far-reaching effects.

I would like to point out that with respect to this particular issue the compilations that are made from these research findings in the individual cases would be made available not only to congressional committees but to the public generally and that these would summarize the findings from all the cases that are looked at individually.

Mr. MOSS. I recognize that the summary of findings would be available, but this is sort of an impersonal, not overly valuable bit of information under certain conditions.

I might be interested, and it might be appropriate that I be interested as a member of this committee, in whether manufacturer A has a high disregard for safety and manufacturer B is more more conservative. The type of report or summary you would make available to me and this committee would not be helpful.

Secretary CONNOR. Congressman Moss, there would be no intent in this to suppress information of that kind. This is more for the protection of the individual participants in the accident and those who may have been witnesses to some aspect of it who perhaps weren't right on the scene, but whose knowledge, at least, would have some relevance from the point of view of a broad research study to determine all elements that may have been involved in it.

I think there is no difficulty in trying to work out language that will take care of your point as well as what was in mind here.

Mr. DINGELL. Will the gentleman yield?

Mr. MOSS. Yes.

Mr. DINGELL. The following language follows that: "*Provided, however, That compilations and such reports may be made available to the public when individuals and individual accidents are not identifiable.*"

That very truly indicates that, first of all, you can make compilations if you so choose. There is no imposition of a requirement that you do so.



Second, it very strictly limits the information which reaches the public because it says "when individuals and individual accidents are not identifiable." This would mean, for example, that no clear judgments could be reached by persons concerned regarding causative factors in particular accidents; it would mean that no particular information would reach individuals regarding safety of the vehicle or safety of types of vehicles under particular sets of circumstances, or safety of particular parts of vehicles under particular sets of circumstances.

It would also mean that particular road conditions might well be withheld from the public which might have been a causative factor in an accident.

So the amount of information which could, on a discretionary basis, be released to the public would be of most limited nature.

Am I not correct, Mr. Secretary?

Secretary CONNOR. Certainly, Congressman Dingell, that is not the intent. The intent is to make available in summary form all the relevant information that is of concern for the purposes of this act. The intent is just to make unavailable the individual reports of individual accidents that could then be used in the purposes of an individual lawsuit.

We think that those should be governed by the State laws with respect to the taking of evidence, the furnishing of witnesses, and so forth. Of course, in the State action, the report of the local police officer who investigated it is relevant. But we think this broader national purpose can be better achieved if this type of provision is included.

Mr. DINGELL. You conceive, however, that the limitation on the amounts of information which you may release is much broader than that. It actually is in the discretion of the Secretary with regard to releasing it. The limitation is very broad and the limitation imposed can narrow the information released to the public.

Secretary CONNOR. I think a further drafting activity is indicated.

Mr. DINGELL. Thank you.

(The following additional information was subsequently submitted by the Department of Commerce:)

GENERAL COUNSEL OF THE DEPARTMENT OF COMMERCE,  
*Washington, D.C., May 11, 1966.*

Hon. HARLEY O. STAGGERS,  
*Chairman, Committee on Interstate and Foreign Commerce, U.S. House of Representatives, Washington, D.C.*

DEAR MR. CHAIRMAN: During the course of testimony on the Traffic Safety Act of 1966 before your Committee, questions were raised concerning section 307 of H.R. 13228, which is the provision in the bill restricting the use of reports by Federal personnel on individual traffic accidents. Perhaps these further comments will be helpful to the Committee.

The provision now contained in section 307 is designed to encourage the free flow of information from witnesses to investigators. A primary purpose of the proposed traffic safety program is to prevent future accidents and to reduce personal injury and property damage when future accidents occur. It is not an objective of the proposed program to investigate individual accidents for the purposes of litigation of private rights. The accident investigators, in carrying out their assigned scientific purposes, need full information on actual accidents. Persons involved in accidents—often the most knowledgeable as to what actually occurred—will naturally be reluctant to discuss the accident freely, because of the possibility of litigation. Insurance companies often caution policy holders

involved in accidents not to discuss them. Many insurance policies provide in effect that the company will not be liable in the event the policy holder discusses the accident without the knowledge of the company.

Section 307 is designed to make it clear that witnesses and others involved in accidents, by virtue of freely discussing the accident with official accident investigators in the safety program, will not be either prejudicial or benefited in private litigation. We believe that this is the best way in which to gain the needed information to accomplish the purposes of the program.

Federal personnel cannot possibly investigate every traffic accident which occurs. It will be possible to investigate only a small sampling of the number of accidents now occurring annually in our nation. Those which are investigated will probably be chosen at random for their potential for yielding needed over-all information. To have this expensive investigation available to the parties in a relatively few accidents for *private* litigation use and not for automobile accidents generally is, in a sense, discriminatory.

Another reason for the provision in section 307 is to permit accident investigators to conduct their work without being tied up in litigation. To the extent accident investigators are required to spend their time in court and in preparation for court appearances, valuable time would be lost and they would not be available to conduct and analyze accident investigations in furtherance of the scientific purposes of the program. Court appearances, particularly to support detailed statements of fact or opinion, could use up a great deal of the time of the doctors, engineers and other accident specialists who would comprise the accident investigation teams, if exclusion of their testimony is not provided by statute. These accident investigators should spend their time for the end purpose of improving safety for *all* Americans.

The question has also been raised as to whether individual accident reports should be available for public inspection even though these reports would not be admissible in court proceedings and even though Federal investigators could not be required to testify. Assuming that these reports would not be admissible in court proceedings, it is questionable whether this type of report should be open for general public inspection. If they were, it is likely that they would be of the most interest to litigants or their representatives who would want to pick up any leads solely for purposes of litigating a case.

On the other hand, it is recognized that documents and papers accumulated in the course of administering our Federal laws should generally be open to public inspection. Therefore, it is evident that we have here somewhat of a conflict between various public interests. It is certainly in the public interest generally to have government papers and documents open to general public inspection. At the same time, it is in the public interest not to permit individual traffic accident reports of the type under consideration to be used, directly or indirectly, to assist in private litigation. Also, it is in the public interest to adopt procedures regarding these reports so as to encourage those involved in accidents to cooperate to the fullest extent with Federal investigators in compiling information about that accident—not for the specialized purpose of resolving litigated issues on that one accident but to serve a broad general purpose of finding out—on a sampling basis—what are the main contributing causes to traffic accidents in this country, so that on the basis of that information Government, private industry and citizens generally can more adequately meet the problem of highway accidents.

In conclusion, it is our opinion that the bill should contain prohibition against admitting these individual traffic accident reports into evidence in any private litigation, and the bill should further contain a provision that the Federal personnel investigating these accidents may not be required to give personal testimony in private litigation. Further, on balance, we are inclined to the view that the bill should contain a provision that these individual accident reports should not be available for general public inspection. However, it is recognized that this latter point presents a close question in this instance and, if the Committee concludes that it is preferable to provide that these individual accident reports shall be available for general public inspection, the Department of Commerce would not object to that conclusion.

We have been advised by the Bureau of the Budget that there would be no objection to the submission of this letter from the standpoint of the Administration's program.

Sincerely,

ROBERT E. GILES,  
General Counsel.



Mr. FRIEDEL. Mr. Younger.

Mr. YOUNGER. Thank you, Mr. Chairman.

Thank you, Mr. Secretary. In all honesty and candor, your statement leaves me with the impression that nothing has ever been done either by the manufacturer, Congress, the States or by the local governments in the past in regard to safety; that you have discovered something new and are taking it up and proceeding to drive in all directions at the same time.

That is the impression that I get completely from your statement. I know you don't intend that because you know as well as we do that we are all interested in safety; that the manufacturers have spent millions of dollars on the question, as have the local governments.

It has been before this committee for years. We have legislated on it. We have held hearings. In going in all directions I get the impression that you propose to even issue regulations this year and standards, in 1966, even before you make your investigations or conduct your research. That is covered here in your statement.

It seems to me that if we are going to get at this problem, the one thing that is needed is facts as to what causes accidents before we can prevent them.

We had hearings, as you know, and we thought from the hearings that a large number of accidents were caused because they did not have seat belts. We legislated in the field. We find that 90 percent of the people will not even use seat belts now that they are installed.

It seems to me that we ought to be able to find out the major causes of accidents. Is it speeding? Is it too much power in the automobiles? Should we legislate and put a governor on the automobile so that it is impossible for it to go over 60 miles an hour or 50 miles an hour?

The first thing to do is to get the research. We have tried in the hearings to date, to get the facts as to what is the major cause and what are the other causes, whether it is the highways, or other causes. I think we find in almost all cases it is the driver. I don't know what you can do about that.

I think we ought to get at these facts first, if we possibly can.

I am all for action, but I would like to see the research done and the facts obtained before we start to legislate in the field of standards.

Secretary CONNOR. Congressman Younger, may I answer at this point?

Mr. YOUNGER. Yes.

Secretary CONNOR. This bill does provide that there will be a period of 2 years of study and research. During this period, adequately trained people of the Government agencies would focus on standards before any safety standards could be decided upon. I think the bill before you does give precedence to the point you are making.

Mr. YOUNGER. In reading from your statement, it says:

It should be reported, in this regard, that the development of standards as required by existing provisions of law is underway and that the target date for the initial issuance of standards is early autumn of 1966.

You know as well as I do, Mr. Secretary, that you just cannot get research and get the facts to start issuing standards by the fall of this year and do it intelligently.

Secretary CONNOR. Does that come from my statement?

Mr. YOUNGER. Yes; on page 17.

Secretary CONNOR. That is the reference to the Baldwin amendment that was adopted by Congress last year and we are proposing that that be amended by this legislation because we recognize that we can't do this thing intelligently within that time limitation. But the provision for vehicle standards in title I specifically provides, and I hope to make it clear, that there wouldn't be anything for a period of 2 years except the necessary study and research, which we think is essential before any vehicle standards should be issued.

Mr. CUNNINGHAM. Will the gentleman yield on that point?

Mr. YOUNGER. Would you wait just a moment?

That may be your purpose, Mr. Secretary, but I must confess that in following the statement and listening to you I get a different impression.

Secretary CONNOR. Mr. Boyd has a further elaboration if you will allow it.

Mr. BOYD. Congressman, the standards to which you are referring that are contemplated being submitted in the fall of 1966 are not vehicle standards. They have nothing to do with vehicle standards. These are standards which were required to be developed by the Secretary of Commerce as a result of the Baldwin amendment to the Federal Highway Act which was passed last year to provide for the establishment of safety programs by the individual States with the approval of the Secretary of Commerce.

These standards relate only to the establishment of safety programs among the various States and have nothing to do with vehicles.

Mr. YOUNGER. Mr. Boyd, on page 8 it states: Any Federal performance standard issued by the Secretary of Transportation would preempt the field and bar a State standard.

Secretary CONNOR. Yes, sir. But this is another title. This is where we are talking about vehicle standards. The purpose for this is that the automobile industry cannot be expected in the area of vehicle performance standards to have acceptable automobiles that meet a proliferation of standards among the different States.

We are talking apples and oranges here, Mr. Congressman.

Mr. CUNNINGHAM. Will the gentleman yield?

Mr. YOUNGER. Yes, in just a moment.

You say there is no Federal facility or laboratory equipped and capable of testing the interaction of the vehicle, interior, and so forth.

Do you intend to make some use of the elaborate testing grounds that are now provided by the manufacturers in the tests of their automobiles without going ahead and building another large testing ground somewhere?

Secretary CONNOR. Congressman, we think a Federal testing ground or facility is needed. These automobile manufacturers do have fine facilities for their own purposes. But the Federal Government, itself, will need facilities to check on the results that are submitted by the industry.

Mr. YOUNGER. They don't use their grounds and roads all the time. Don't you think they would make their testing grounds available to you whenever you wanted them?



Secretary CONNOR. Yes, sir; probably, on some mutually acceptable basis. We certainly would enter into cooperative arrangements when it is quite appropriate. But in addition, there will be facilities, and they haven't been precisely defined, that should be managed and built and operated by the Federal Government, itself.

In many industries that are regulated by the Government the industry's own resources are extensive. But this doesn't preclude the necessity for the Government, itself, to have some laboratory facilities. The Federal Food and Drug Administration is a good example of this.

Mr. YOUNGER. That is true, that we have a laboratory locally here and they do that. But that is a little different than going to the great extent of building a very expensive driveway, taking hundreds of acres of ground off the tax rolls, to duplicate the tracks that are already available, and I am sure which could be used.

Secretary CONNOR. Congressman Younger, I am not so sure that we could, because the kind of facility that is contemplated here for Federal Government ownership and management would be devoted to these safety objectives, which are very comprehensive and which would require the extensive use of those facilities.

I happen to know something about the facilities in the automobile industry and they are busy most of the time on their own activities, some of which have to do with safety but others of which have to do with other aspects of automobile manufacturing and testing.

I think for their own proprietary purposes they would be most reluctant to have the Government barging in and try to use those facilities as frequently as would be necessary. I think this is a matter that has to be ascertained.

Mr. YOUNGER. That is all right. I would like to have the assurance that before you start in using a lot of tax money to duplicate facilities, that you are going to do what you can to use those facilities.

Mr. KORNEGAY. Will the gentleman yield?

Mr. YOUNGER. No. I will in a moment.

On page 13, what is meant here by the quality of existing programs and formulating new programs in needed areas.

Are you referring there to areas of the country or areas of activity?

Secretary CONNOR. Congressman, are you referring to my page 13?

Mr. YOUNGER. Page 13 of your statement, at the bottom.

Secretary CONNOR. I think in that sense, Congressman, the word "areas" is not geographical but substance.

Mr. YOUNGER. That is what was not clear to me as you read it.

On Page 14, is it your intention in regard to the driver licensing and so forth to attempt to take the licensing away from the States and issue Federal licenses?

Secretary CONNOR. No, sir. The intent here, Congressman Younger, is to make grants to the States on some participating basis, 50-50 matching, so that they can conduct the necessary studies to improve their own programs.

It may very well be, though, after a period of time, that the need will become clear for some Federal minimum driver licensing standards, and there would be authority to go to that extent. But the actual legislation to put that into effect, the administration of the

program, and the determination of just what its aspects would be would still remain in the hands of the States.

Mr. YOUNGER. There is one other aspect of this that bothers me, and that is the apparent complete control of the issuance of standards, rules, and regulations and everything, vested in the Secretary of Commerce. Apparently that is overlooking anything that the Congress might do in the way of legislating. Apparently this contemplates that all of the standards and rules and regulations, everything, to be adopted shall be final in the Secretary of Transportation.

Secretary CONNOR. Congressman Younger, under title I, which provides for the motor vehicle standards, there would be, if this law is adopted by Congress, a delegation of authority from the Congress to the Secretary of Transportation within the limits prescribed.

With respect to the other titles there would be a reference back to Congress from time to time, not only for appropriations but in title III the delegation to the Secretary of Transportation is quite limited, and, as I indicated, it leaves the authority of the States intact.

So if there was any change beyond the kind of financial assistance programs and the setting of minimum standards in these areas of vehicle inspection at periodic intervals, and driver licensing, there would have to be some further action by the Congress.

Mr. YOUNGER. In general, I gather the impression from your statement and explanation of it that the expansive powers granted to the Secretary are very broad, rather than through the legislative process.

Secretary CONNOR. I think it is fair to say, Congressman Younger, that this would be unprecedented in the sense that it would define a broad Federal Government role in this whole area of highway safety in a way that has not been done before.

We think the facts justify this. We think that the highway safety problem is a matter of great public concern, and national interest. We don't think that the objectives that have been defined can be accomplished on a piecemeal basis or by leaving the authority untouched that is now vested in the States and municipalities.

Mr. YOUNGER. Thank you, Mr. Chairman.

Mr. FRIEDEL. Mr. Dingell.

Mr. DINGELL. Mr. Secretary, I notice you have present with you Mr. Boyd, who has considerable experience.

Turning to the questions Mr. Moss and I were asking, I would like to know how the proposal for withholding of information with regard to investigations and research into highway accidents differs from the same requirement with regard to the requirements for investigations in aircraft crashes or accidents?

Mr. BOYD. In the case of aircraft accidents, Congressman, the reports of the Civil Aeronautics Board establishing probable cause are made public. They are not permitted to be introduced into court in private litigation nor are the investigators subject to subpoena.

Mr. DINGELL. Are they statutorily exempted from subpoena?

Mr. BOYD. I am not sure on that point. I don't believe it is a matter of statute. My recollection is that it is a matter of regulation and that the courts have generally been willing to follow the regulation.

In connection with the aircraft accidents one of the things that has been involved is a relative weighing of the public interest, and a



judgment on the part of the Board that with the rather limited resources available for investigating accidents, and the rather substantial number of accidents which run at a rate, with private aviation and general aviation, of several accidents a day, the investigators would be unable to do their job as investigators if they were subject to subpoena power in all of the cases which are generated as a result of these accidents.

I would like to also say that the effort in this proposed legislation is to do the same kind of in-depth investigation in a few automobile accidents that is being done constantly in the case of aviation accidents, and it is felt to be only by virtue of the confidentiality that it is going to be possible to obtain a complete, factual review of what happened.

I would like to give a couple of examples, if I might.

Mr. DINGELL. Before you do that, since my time is limited, I think it would be fair to say the requirements for secrecy in this instance are vastly more broad than they are with regard to the requirements for secrecy in the case of aircraft accidents. Am I correct?

Mr. BOYD. The difference is that the report would not be published except on the basis of being able to obscure the identity of the accident and the individual.

Mr. DINGELL. As I read the statute, it is not even necessary that that information, that much information, be made public. Under the statute proposed here, under the legislation before us, it is not even necessary for the Secretary to make available compilations. It says he may make them available.

Mr. BOYD. This is not an issue, Congressman. As the Secretary said, this can be reviewed. There is no issue here at all.

Mr. DINGELL. What I am saying here is that the restrictions on public information are much more compelling, much stronger, much more rigorous in this case than they are in the case of aircraft accidents. Am I correct?

Mr. BOYD. Are you referring to the way the bill is drawn?

Mr. DINGELL. The way the statute is and the way the practice is before the agencies that investigate aircraft accidents.

Mr. BOYD. I don't understand your question. I am sorry.

Mr. DINGELL. My point is that I made the statement, and if I am incorrect I would like to have you correct me, that the rigors of the proposed statute with regard to the release of information on any particular accident or upon a set of accidents, or a compilation, are much more stringent under the proposed statute before us than they are under the statutes and regulations of agencies charged with the investigation of aircraft accidents.

Mr. BOYD. Yes, sir; that is correct.

Mr. DINGELL. You will not be investigating a significantly larger number of automobile accidents here than you would aircraft accidents; am I correct?

Mr. BOYD. I think that is undoubtedly correct.

Mr. DINGELL. In other words, you wouldn't be investigating a significantly larger number of accidents under this legislation than you would in aircraft accidents?

Mr. BOYD. No, sir; I don't anticipate that.

Mr. DINGELL. That is because of the limited number of staff.

I would like to get into one further point.

Mr. PICKLE. Will the gentleman yield on that point?

Mr. DINGELL. Yes.

Mr. PICKLE. Just as a matter of information, since you do not allow investigators, or the law does not permit investigators, to be subpoenaed into court, do you permit individuals or their designated authority to be present or to watch the investigators as they put to test the various problems regarding a crash?

Mr. BOYD. In aircraft accident investigations; yes, sir. It is the practice that all parties in interest have an equal opportunity to participate.

Mr. PICKLE. In other words, you could have an observer as the investigators tried to determine what caused the crash? They could be there as observers?

Mr. BOYD. That is correct, Congressman Pickle. However, this does not include lawyers.

Mr. PICKLE. Could it include lawyers of the individual or family involved?

Mr. BOYD. In aircraft investigation, anyone who has some ability to provide something to the accident investigation is permitted. The members of the families are not permitted.

Mr. PICKLE. Did you say lawyers would not be permitted?

Mr. BOYD. They would not be permitted.

Mr. PICKLE. Would an engineer be permitted?

Mr. BOYD. Yes.

Mr. PICKLE. Thank you.

Mr. DINGELL. I would like to ask you a little bit more on this.

You happen to be an attorney, aren't you, Mr. Boyd?

Mr. BOYD. Yes, sir. I keep trying to forget that fact, but it is true.

Mr. DINGELL. I believe, then, you and I can discuss the laws of evidence. Accident reports by police or by the FAA or CAB would be hearsay, would they not?

Mr. BOYD. Would be hearsay?

Mr. DINGELL. Yes. And, as such, would not be admissible.

Mr. BOYD. By virtue of statute, accident reports of the CAB are not permitted into the record.

Mr. DINGELL. But they are, nevertheless, under common law in the judicial system of our States, excludable as hearsay?

Mr. BOYD. I haven't been engaged in trial practice for a long time. I will accept your statement of the law.

Mr. DINGELL. Under the rules of evidence, they would be hearsay. They are third-party statements.

Mr. KORNEGAY. Would they be admissible as corroborative evidence if the person testified and used them to corroborate his testimony? Could the man who did the investigation use them in testifying?

Mr. DINGELL. If I were defense counsel, the accident report would get in under the most stringent objection I could raise, and I would certainly appeal any ruling against me.

Mr. KORNEGAY. But under the circumstances I just described to you, I think it would be proper.

Mr. DINGELL. I would doubt that they would go in under any circumstances.



Secretary CONNOR. Mr. Chairman, I would like to point out in a facetious —

Mr. FRIEDEL. When lawyers get together, it is always a problem.

Secretary CONNOR. This is the sort of problem under the laws of a particular State that takes up a lot of time and would tie up these Federal investigators from going on to look at the next significant accident for research purposes. This is the kind of problem that seems preferable to avoid, if we can.

Mr. FRIEDEL. This is a good example right here.

Mr. Cunningham.

Mr. CUNNINGHAM. Thank you, Mr. Chairman.

Mr. Secretary, we are all interested in reducing traffic accidents. It is a question of how to go about it. You have spent a good deal of your paper, it appears to me, on putting the blame on the automobile design. Is that correct?

Secretary CONNOR. Congressman Cunningham, the intent of the statement is to indicate that the cause of the automobile accident is usually a complicated matter and often involves various elements. It can involve the vehicle structure, environment, including the highway, the driver, a combination of all of them. At the moment we don't have adequate statistics that can lead to one definite conclusion.

(The following study was submitted by the Department of Commerce:)

#### THE ROLE OF THE VEHICLE IN HIGHWAY SAFETY (THE "SECOND COLLISION")

In order to define the several roles of the vehicle in highway safety, we must first consider the three phases of the highway safety problem—the three phases whose end result of injury and death is our concern.

##### I. THE FIRST PHASE—THE FACTORS THAT LEAD UP TO THE CRASH

The first, or "initiation" phase involves the operation of the many complex factors that lead up to highway crashes. In this first phase, as is well known, we are primarily dealing with a variety of human behavior factors. Where these are undesirable, this is justification for the oft repeated, but oversimplified, statement that the problem of accidents is primarily one of human behavior, of "the nut behind the wheel."

The driver, and, in many accidents, the pedestrian, does not function, however, in isolation from the characteristics of the highway and the vehicle. Where these are defective, or where their shortcomings make it more difficult to operate safely, accidents increase, as is well known to scientists who have studied the factors that lead up to crashes.

As far as the vehicle is concerned, its role in *initiating* crashes can be classified briefly here under three headings:

(a) Mechanical failure unrelated to maintenance: for example, failure of a relatively new tire through no fault of the owner or operator.

(b) Mechanical failure related to maintenance: for example, brake failure as the result of keeping insufficient brake fluid in the system.

(c) Unsafe operation as the result of vehicle characteristics which make safe operation more difficult: for example, as the result of unnecessary glare from highly chromed windshield wiper components and the upper surfaces of instrument panels.

Although not necessarily the most important factors among the events that lead up to crashes, such vehicle characteristics do play a role, the modification of which can result in substantial increases in highway safety.

##### II. THE SECOND PHASE—THE CRASH ITSELF

In the crash itself it is the characteristics of the vehicle that predominantly determine whether injury results. It is the increasing public understanding of this fact, first very well documented by scientists about a decade ago, that has

primarily led to the increasing emphasis on vehicle design itself, rather than merely limiting attention to the pre-crash factors already discussed.

In the crash the vehicle functions as a package carrying precious, moderately fragile goods. When the package hits something or is itself hit, its ability to maintain its structural integrity without collapsing inward on its occupants, or without spilling them out on the road, often determines whether they are injured and, if so, how severely. A decade ago, for example, scientists first showed that, contrary to popular belief, if the door locks or hinges failed and the occupants were thrown out their chances of serious injury or death were very greatly increased. Similarly, it is well demonstrated that the driver has a far greater chance of escaping without fatal injury if the steering assembly is so constructed that crash forces do not drive it into his chest.

Another way in which the construction of the vehicle greatly influences whether the forces of the crash will produce injury relates to the hardness and contour of its interior surfaces. With predictable regularity more than six thousand men, women, and children are injured each day in the United States in hitting these surfaces. Consequently, it is not surprising that the attention paid to crash padding, to the relocation of sharp protrusions, and to the further evolution of the interior of the vehicle "package" has been shown by research workers to offer considerable gains in injury prevention and amelioration.

The results of the crash in injury and death can also be very greatly diminished if the design and equipping of the vehicle provide for the restraint of the driver and passengers with safety belts, to decrease the extent and violence with which they would otherwise be tossed against the structures around them. This is an additional reason for the greatly increased public and professional attention to the characteristics of the crashing vehicle itself.

It is because of the considerable influence of these crash factors on the outcome in death and injury that we must also pay considerable attention to them in any balanced highway safety program.

### III. THE THIRD PHASE—THE CLEANUP

The final outcome in death and disability for the overwhelming majority of those who survive the crash is often, in turn, greatly influenced by the quality, availability, and rapidity of the emergency medical and other "cleanup" services. This Phase, which must also serve as a part of the basis for any well balanced highway safety program, is included here for completeness and because of its great importance. In it, however, the vehicle is not itself of great importance, except to the extent that its collapse influences the difficulty with which the injured can be extricated.

*In summary*, the vehicle's characteristics are of some importance in the initiation of crashes. They are of paramount importance in determining whether injuries take place once the crashes have begun, and are of minor importance in the cleaning up of the resultant human damage. Stated differently, human behavior is an important, but by no means exclusive factor, in determining whether crashes take place; vehicle construction is of great importance in determining whether the crash forces produce injury; and, the quality of medical care often determines the success of the post-accident salvage. We thus emphasize the vehicle not exclusively, but as one of the major points of attention in any scientifically sound and balanced approach to highway deaths and injury.

Mr. CUNNINGHAM. I beg to differ with you. There are statistics, and they will show that the design of the automobile is far from being the major cause of accidents.

Secretary CONNOR. Congressman, we are familiar with those statistics. It is our opinion that the statistics available are inadequate.

Mr. CUNNINGHAM. Yes, I think that is true. I am concerned about this. In my State, having been professionally in this work for a long time, we have very adequate statistical material. I don't know why the majority of the States and local communities do not. But on that subject, wouldn't it be well to get what statistics there are compiled, particularly by the National Safety Council, as to causes of accidents,



and then you will know what is most effective to prevent this carnage on the highways? You were previously with Merck & Co., were you not?

Secretary CONNOR. Yes, sir; I was.

Mr. CUNNINGHAM. If you developed a new drug or a new pill, did you develop one to meet some disease that was hardly heard of, or do you give most of your attention to those that are major causes of illness?

Secretary CONNOR. It can happen both ways. In the development of cortisone, for example, in the early days of research it was then thought that what was then called Kendall's compound D would be effective only in a very rare disease called Addison's Disease. But, as the research progressed, it was discovered that the drug cortisone was useful in many, many forms of rheumatoid arthritis.

Mr. CUNNINGHAM. Did you have adequate statistics when you developed the various new drugs so as to meet the most prevalent illness cause?

Secretary CONNOR. No, sir. Often they are quite inadequate. That is the nature of research. If you knew all the answers, you wouldn't do research. In this particular field of automobile research, particularly as it relates to the vehicle, although, as you indicate, many States have quite good statistics, with respect to the first accident. That is, when the automobile hits something, either another car or a pole or something.

But there are comparatively no statistics available as to what happens in the so-called second collision, and that is when the occupants of the car start hitting the car itself.

Mr. CUNNINGHAM. You are familiar with the fact that the majority of traffic accidents occur within 25 miles of the home, are you not?

Secretary CONNOR. Yes, sir.

Mr. CUNNINGHAM. Then when we talk about speed, and I believe Mr. Younger brought this up, there are many States that don't have a speed limit on certain highways. I believe it is your Department that has to do with the interstate highway program is it not?

Secretary CONNOR. Yes, sir; the Bureau of Public Roads in the Department of Commerce has the Federal jurisdiction for the interstate highway construction program, but not maintenance.

Mr. CUNNINGHAM. If anybody goes at a high rate of speed on your new Interstate System and causes an accident, are you not negligent in not having engineered it correctly?

Secretary CONNOR. Well, as a matter of fact, studies are still going on as to whether the engineering techniques employed in the highway construction at the present time are adequate or not. This is a continuing study. As my testimony indicates, the concentration right now is on a program to try to eliminate from the Federal-aid system certain locations that are, shall we say, accident prone. This requires the cooperation of the States, of course, because it is a matching grant program.

Mr. CUNNINGHAM. In the interstate program, can you force lights at the cloverleaves where most of these accidents occur, the highly accident prone areas? Can you require that lights be inserted there at night?

Secretary CONNOR. As I indicated, Congressman, the elimination of these hazards requires the participation of the particular State as well as the Federal Government.

Mr. CUNNINGHAM. I understand that. But if you are so concerned about this problem, why don't you put legislation before us so that you could go ahead and tell the States to do it?

Secretary CONNOR. By and large, Congressman Cunningham, the present approach to highway construction and improvement which requires the work to be done by the States but under Federal standards and with Federal approval works very satisfactorily. So we don't see any necessity for requiring the States to do something, at least at the present time.

Mr. CUNNINGHAM. So far as the lights are concerned?

Secretary CONNOR. The highway lighting situation is a problem in connection with some roads, but the present program of concentration is more aimed at the elimination of places where the road goes over a bridge and the bridge clearance on both sides is too narrow and it forces the automobiles to go into maneuvers before getting to that point.

Mr. CUNNINGHAM. This interstate program has been going on for how long—10 years or so?

Secretary CONNOR. The interstate program? It is designed to be completed in 1972 and it was 14 years at the start, I remember; 1956 was the first year.

Mr. CUNNINGHAM. Yes, the 10 years that I mentioned.

Have you anyone in your agency that checks these accidents to find out the cause on the interstate program?

Secretary CONNOR. No, sir. That is still within the province of the States.

Mr. CUNNINGHAM. Do you think that is a responsibility of your Department?

Secretary CONNOR. It would be under this new legislation.

We don't have the authority at the moment. We don't have the resources to do it. We don't do accident investigation in the Federal highway system at this moment. We think we should. This is one of the objectives of the legislative proposal.

Mr. CUNNINGHAM. You mentioned the GSA safety standards for the vehicles it purchases and the Department of Defense does the same for military vehicles.

What safety features do they have on their vehicles that I don't have on mine?

Secretary CONNOR. The GSA safety features for 1966 have been adopted voluntarily by the manufacturers, with a few differences.

Mr. CUNNINGHAM. I was just wondering what they have on their vehicles that I do not have on mine.

Secretary CONNOR. For 1966, Congressman Cunningham, I don't think there are substantial differences. The proposals for 1967 would, for the first time, make a difference, and the automobile manufacturers even here have indicated that they will adopt at least most of these GSA requirements voluntarily for passenger vehicles, too.

Dr. Hollomon is familiar with these details.

Mr. CUNNINGHAM. I would like to hear from you. You presented this statement.



Who is it in your Department who is a qualified traffic safety man, that has a degree in traffic engineering or in other fields of traffic safety that would have been responsible for developing your presentation?

Secretary CONNOR. The Bureau of Public Roads, as I indicated, has the responsibility for the Federal highway interstate and Federal-aid programs. We have a large number of people qualified in highway safety. Mr. Rex Whitton is head of the Bureau of Public Roads.

(The following information was submitted by the Department of Commerce:)

TRAFFIC SAFETY PERSONNEL OF THE BUREAU OF PUBLIC ROADS, DEPARTMENT OF COMMERCE

The Bureau of Public Roads has a fully qualified staff competent in all areas of traffic safety. The size of this staff is not considered sufficient in number at the present time and expansion is contemplated to handle the added workload which will result from passage of the proposed legislation. The major safety unit in the Bureau of Public Roads is the Office of Highway Safety. Its present authorized strength is 68, of which 30 are professional level competent in the areas of traffic engineering, driver licensing, driver education, traffic laws and enforcement, safety information systems and other areas in the field of traffic safety. The 1966 budget for the Office of Highway Safety is \$1,704,000.

Mr. CUNNINGHAM. But wouldn't they only be qualified to speak for the highway program; the Bureau of Public Roads, I mean? Would they be able to speak on the other features of your proposition?

Secretary CONNOR. With respect to standards for motor vehicles, we do not have that authority at the present time. This is one of the necessities, to build up a qualified staff. We do have Dr. Hollomon.

Mr. CUNNINGHAM. I want to get back again and again to the fact that it is not the vehicle design that is a major cause of accidents. There have been many improvements in safety design. I am not protecting the automobile people at all. Having been in this work professionally for many years, I know it is not the vehicle, but it is many, many other things. It is the driver, primarily. It is the poorly laid out roads as we have in Arlington, Va., where you have hedges on the corners and you can't even see if you want to enter a street. It is the small red and green lights where, if you are in a business district, they blend into the neon signs in the back and you can't even see them.

It is the small stop signs instead of the larger ones, so that everyone can see them. It is many, many things. All you have to do is get the statistics.

Even though you say they are not adequate, there are plenty of them that would determine just what the major causes of accidents are.

I will make a statement without reservation that it is not the design of the automobile.

You say on page 15 that nearly two-thirds of the increases in automobile accident deaths in 1965 involved persons under 24 years of age. You and other people who are not professionals in this field keep saying that it is the automobile, but why is it that the tremendous increase is under the age of 24, and the increase among the older people is not nearly as great?

Wouldn't that indicate that it is the man behind the wheel, the engineering of the highways, the stop and go light problem, and all

these others? In other words, if the major increase is in this age bracket of under 24, and I have the same car as my neighbor's youngster and he has an accident and I don't, whose fault is it? Is it the design of the automobile?

Secretary CONNOR. Congressman Cunningham, as I go on to say in that statement, available evidence also shows that the beginning driver is likely to have more accidents than the experienced driver.

So the driver and his experience, of course, enter into the picture. We have emphasized that. We have also emphasized that the road does. But we also say that the vehicle has something to do with the situation. We can't say it is completely blameless.

Mr. CUNNINGHAM. On that same page you say it would be a disservice to say that nothing is being done at the Federal level to improve traffic safety.

I am wondering what the accident rate is among Federal vehicles. Surely the Federal Government must have a reporting system to determine what the causes of these accidents are; do they not?

Secretary CONNOR. So far as I know, the Federal Government does not—

The CHAIRMAN. I am going to try to limit the questioning on the first go-around to 5 minutes.

Mr. CUNNINGHAM. That has not been done previously.

The CHAIRMAN. I know, and I am sorry I was not here at the start of the questioning. But at the end of this questioning, would you pause to let the others question?

Can you return this afternoon, Mr. Secretary?

Secretary CONNOR. Yes, sir.

The CHAIRMAN. We will give each person an opportunity to ask questions.

You may proceed.

Mr. CUNNINGHAM. According to your statement, the Federal Government has control over their vehicles and they do not have a reporting service. You say the reporting of accidents and the causes of accidents in inadequate.

You have some control over Federal Government vehicles, and you say there is no accident reporting system?

Secretary CONNOR. Congressman, I don't have such control, and the Federal Government has no reporting system that includes the causes of all accidents involving Federal vehicles. There are some statistics available. We will be glad to furnish them for the record.

(The information requested follows:)

ACCIDENTS INVOLVING GOVERNMENT-OWNED OR LEASED MOTOR VEHICLES FOR A  
RECENT FIVE-YEAR PERIOD

The attached report compiled by the Bureau of Employee's Compensation contains the latest and only centralized data available on motor vehicle accidents in the Federal establishment. The information relates only to fatal and non-fatal injuries. Currently within the Federal establishment there is no centralized recording of total motor vehicle accident information regarding involvement of government owned or leased vehicles.

Also attached is accident information on motor vehicles operated by the Department of Commerce. If similar data are compiled by other departments, it is possible that a reasonably accurate appraisal of all motor vehicle accidents within the Federal establishment might be developed.



## MOTOR VEHICLE ACCIDENTS, U.S. DEPARTMENT OF COMMERCE

1964

Motor vehicle accidents: 328.  
Disabling injuries: 80.  
Fatalities: 2.  
Cost of injuries: \$471 per injury.  
Cost of fatalities: \$59,000 per death.  
Vehicle damage costs: \$200 per accident.  
Total cost: \$221,280.  
Rate per million miles: 5.5 accidents.

1965

Motor vehicle accidents: 295.  
Rate per million miles: 6.6 accidents (remaining data not prepared).

## VEHICULAR WORK INJURIES SUSTAINED BY CIVILIAN FEDERAL EMPLOYEES UNDER THE FEDERAL EMPLOYEES' COMPENSATION ACT, CALENDAR YEARS 1959-1963

(Compiled by: Statistical Division, Edward F. Brayer, Chief Statistician, Bureau of Employees' Compensation, U.S. Department of Labor, Washington, D.C., December 1964)

## SCOPE AND CONTENT

This survey includes all vehicular-caused injuries sustained by civilian Federal employees where the vehicle was in motion, except aircraft, watercraft, railroads, and street-cars. It is based upon official reports made to the Bureau of Employees' Compensation.

The injuries included in this survey were sustained during the calendar year, as reported through March 31st of the subsequent year.

All costs assessed include direct expenditures payable by the Bureau of Employees' Compensation, the value of days leave of absence with pay during disability and evaluated future cost in open cases.

The facts presented in this study reflect conditions statistically ascertainable at the time each case was analyzed, and should be interpreted in the light of such necessary actuarial limitations.

All data appearing in Table 2 are included in Table 1.

## COST OF 4,293 VEHICULAR-CAUSED INJURIES EXCEEDS \$6 MILLION IN 1963

The total number of on-the-job injuries to Federal civilian employees from vehicular accidents for 1963 hit a record high of 4,293. This is an increase of more than 10% over 1962 and nearly 14% over the previous five year level. The increase is centered exclusively among "drivers" and "passengers". Injuries to the driver rose 11% over 1962 and 22% higher than the previous five year average while passenger injuries show an increase of more than 16% for the same periods. Record lows are indicated for both the pedestrians and those working on or around vehicles.

The increase in the total number of injuries due to vehicular accidents is again largely in the minor injury cases. Minor injury cases in 1963 exceeded the previous 5 year level by nearly 18%. Nonfatal disabling injuries (these are injuries resulting in at least one full day of disability beyond the date of the injury) increased from 2,124 in calendar year 1962 to 2,296 in 1963.

Fatalities reported as resulting from vehicular accidents mounted to 86, increasing 87% over 1962 and 65% more than the previous five year level. Compensable deaths rose to 71, more than doubling those for 1962, and surpassing the previous five year average by more than 61%. Although not shown in this study, our records indicate that two major departments, Post Office and Army, account for over 60% of the increase in compensable deaths. This one-year record momentarily shatters the otherwise favorable trend observed last year.

The Total Direct Cost incurred in 1963 for vehicular injuries mounted to \$6,333,795, or 63 percent over the previous period. This amount represents nearly 17% of the Government-wide Total Direct Cost (\$37,619,885) for all causes in the same year. Of the \$6,333,795 Vehicular Cost, \$4,273,556 or 67% is chargeable to the 71 compensable deaths, over \$60,000 per case.

TABLE I.—Total number of injuries to civilian Federal employees from vehicular accidents as reported to the Bureau of Employees' Compensation, calendar years 1959-63

Cause	No lost time	Disapproved	No claim filed	Third party	3-day or less	Covered by leave	Compensated	Total number of cases *	Leave cost	Medical cost	Compensation cost	Total cost
<b>1959</b>												
Driver.....	1,185	56	37	103	330	774	334	2,819	\$238,832	\$274,908	\$2,655,765	\$3,169,505
Passenger.....	180	11	6	13	54	99	88	451	47,278	55,728	386,626	489,632
Pedestrian.....	62	8	12	21	21	63	44	210	32,160	187,875	32,160	250,192
Working on or around vehicles.....	180	3	5	5	55	104	80	432	38,216	45,771	341,991	425,978
Total.....	1,607	78	48	133	460	1,040	546	3,912	354,483	408,567	3,572,257	4,335,307
<b>1960</b>												
Driver.....	1,297	71	20	124	361	787	381	3,041	277,544	321,074	2,404,990	3,003,608
Passenger.....	153	12	2	24	42	70	69	381	38,554	74,160	305,073	417,787
Pedestrian.....	63	5	3	18	26	58	38	211	27,284	46,531	151,508	225,323
Working on or around vehicles.....	133	4	3	13	41	84	51	329	29,799	38,847	330,206	398,852
Total.....	1,646	92	28	179	470	1,008	539	3,962	373,181	480,612	3,251,777	4,105,570
<b>1961</b>												
Driver.....	1,259	47	23	105	371	789	376	2,970	300,287	411,235	2,182,132	1,893,654
Passenger.....	152	17	8	14	42	85	65	383	27,968	51,948	623,604	703,580
Pedestrian.....	40	9	1	12	19	59	40	180	26,228	83,970	148,139	238,337
Working on or around vehicles.....	117	1	1	6	33	89	48	295	31,822	31,793	106,354	229,969
Total.....	1,568	74	33	137	465	1,022	529	3,828	386,305	578,946	3,120,289	4,085,540
<b>1962</b>												
Driver.....	1,357	56	29	105	373	793	400	3,113	270,282	386,995	2,101,911	2,739,188
Passenger.....	192	4	1	14	36	98	70	414	42,408	77,796	423,448	543,652
Pedestrian.....	53	4	1	12	19	58	30	177	22,416	36,066	189,123	247,605
Working on or around vehicles.....	66	1	1	1	21	57	41	186	28,868	46,342	274,585	349,795
Total.....	1,668	64	31	131	449	1,006	541	3,890	363,974	527,199	2,989,067	3,880,240
<b>1963</b>												
Driver.....	1,494	74	28	92	401	938	442	3,469	328,871	420,489	4,074,352	4,823,712
Passenger.....	249	9	3	11	40	109	62	463	53,602	73,002	401,556	528,160
Pedestrian.....	31	1	1	10	21	52	41	162	19,789	51,937	397,893	469,893
Working on or around vehicles.....	62	1	1	1	21	35	59	179	27,062	83,442	402,026	512,530
Total.....	1,836	90	32	114	483	1,134	604	4,293	429,324	628,870	5,275,601	6,333,795

\*Includes fatalities.



TABLE II.—*Fatal injuries to civilian Federal employees from vehicular accidents as reported to the Bureau of Employees' Compensation, calendar years 1959-63*

Cause	Disap- proved	Compen- sable	Total num- ber of cases	Medical cost	Compen- sation cost	Total cost
<i>1959</i>						
Driver.....	3	38	41	\$15,869	\$2,134,424	\$2,150,293
Passenger.....	1	4	5	1,797	271,514	273,311
Pedestrian.....		3	3	1,249	92,742	93,991
Working on or around vehicles.....		5	5	1,521	250,969	252,490
Total.....	4	50	54	20,436	2,749,649	2,770,085
<i>1960</i>						
Driver.....	7	41	48	24,309	1,992,051	2,016,360
Passenger.....	1	7	8	3,155	194,501	197,656
Pedestrian.....		3	3	1,200	60,761	61,961
Working on or around vehicles.....		3	3	1,816	252,012	253,828
Total.....	8	54	62	30,480	2,499,325	2,529,805
<i>1961</i>						
Driver.....	6	29	35	23,017	1,476,275	1,499,292
Passenger.....	2	11	13	9,530	577,894	587,424
Pedestrian.....	1	1	2	1,040	64,383	65,423
Working on or around vehicles.....		3	3	1,124	85,172	86,296
Total.....	9	44	53	34,711	2,203,724	2,238,435
<i>1962</i>						
Driver.....	9	26	35	22,542	1,579,823	1,602,365
Passenger.....	1	3	4	2,225	235,110	237,335
Pedestrian.....	2	3	5	3,533	136,288	139,821
Working on or around vehicles.....		2	2	1,824	157,113	158,937
Total.....	12	34	46	30,124	2,108,334	2,138,458
<i>1963</i>						
Driver.....	11	56	67	49,065	3,450,164	3,499,229
Passenger.....	2	4	6	3,274	290,812	294,086
Pedestrian.....	2	5	7	3,429	226,656	230,085
Working on or around vehicles.....		6	6	7,484	242,672	250,156
Total.....	15	71	86	63,252	4,210,304	4,273,556

Mr. CUNNINGHAM. I have several other questions, but I will conclude in deference to the chairman's position with this question. This is not a hostile question, but I am wondering if I may ask it.

Have you ever been involved in a traffic accident?

Secretary CONNOR. I have been involved in no serious traffic accidents.

Mr. CUNNINGHAM. Serious or not serious.

Secretary CONNOR. I have dented a few fenders.

Mr. CUNNINGHAM. Was that due to the design of the automobile?

Secretary CONNOR. I didn't analyze the situation, Congressman.

Mr. CUNNINGHAM. I am sure if you had an accident you may not have analyzed it, but was there something wrong with your automobile that caused that accident?

Secretary CONNOR. Frankly, I just don't recall. I haven't had any dented fender, even, in so many years that I can't recall the circumstances of when I did it.

Mr. CUNNINGHAM. Have any members of your family had a serious accident so that I can get to the point I am trying to make?

Secretary CONNOR. We skidded around a corner one time and jammed into another car. It was an icy condition on the highway.

Mr. CUNNINGHAM. That was not due to the design of the car, was it?

Secretary CONNOR. As I say, I didn't analyze it. I just don't know.

Mr. CUNNINGHAM. It was due to the condition of the road, was it?

Secretary CONNOR. Perhaps. Perhaps it was inexperience of the young driver at the helm. There was a situation within the vehicle that may have caused the banged-up knee that resulted from jamming against a protrusion in the car. Perhaps there would have been a milder effect if that protrusion hadn't been present.

This is the kind of second collision that we are talking about, and we need much more information about the second collision than is now available.

Mr. CUNNINGHAM. All I want to establish is the fact, and it is a fact, that the design of the automobile is not the major cause of accidents. That I know.

Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Rogers?

Mr. ROGERS of Florida. Thank you, Mr. Chairman.

Mr. Secretary, we are glad to see you here today.

Secretary CONNOR. Thank you.

Mr. ROGERS of Florida. Of course, everyone realizes that something has to be done in the safety field. I am somewhat concerned about how you approach setting your standards. You say that you would give the industry 2 years to come around to setting standards themselves and if they met what you think are sufficient, it would be all right.

Would you go ahead and issue those standards, or what?

Secretary CONNOR. Congressman Rogers, we think a 2-year period is needed for the necessary studies both in industry and within the Government. We are going to need some time after appropriations are available to build up a staff of technically trained people, and to get started in this program.

Some of the research work can be done by contracting out to universities and to automobile companies and others with the necessary qualifications.

Mr. ROGERS of Florida. What about the Society of Automotive Engineers?

Secretary CONNOR. That is not an organization, as I understand it, that accepts contracts. It is a professional organization of individuals who are qualified for membership. But there are organizations where research work can be started almost immediately. We would plan to do that.

In the meantime, we expect that the automobile industry, which already has done a countless amount of effort in this field, will continue, and there will be byplay going on. We would hope that at the end of this 2-year period the voluntary standards that are then in existence, either as a result of the automobile industry activities or otherwise, would be adequate for the protection of the public. If they are not, then we would move into the authority that would be authorized in the bill.

Mr. ROGERS of Florida. Now, let me ask you this: You are given a 2-year period and you tell them to look at the situation themselves and to try to correct it. After the 2-year period, what procedures



do you have for the industry to continue to make improvements in automotive safety from an industry standpoint rather than having the Government come in each time and change the regulation, saying "You have to do it," before you give the industry a chance? I don't see any provision in the law for this.

Secretary CONNOR. The provision in the law would be that the industry would have safety responsibility indefinitely into the future and would be expected to continue to emphasize safety.

Mr. ROGERS of Florida. That is not what I am asking, Mr. Secretary. I realize that. You give them a 2-year period the first time.

Are you going to give them a 2-year period before the next ones come out, a 4-year period, a 1-year period, or what?

Secretary CONNOR. At the end of this first 2-year period it is discretionary as to whether minimum motor vehicle standards would be issued. If they are issued, then the industry has the ability to go into court, and in any event the standards wouldn't go into effect for a period of 180 days minimum, but between that and 2 years.

Mr. ROGERS of Florida. I understand that, on your first setting of the standards which would be done at the end of the 2-year period. After that, certainly we will make more progress.

Secretary CONNOR. Yes, sir; we would expect that there would be amendments.

Mr. ROGERS of Florida. Are you going to give them a 2-year period again? Should the industry be given another chance, as you are doing in the first instance? I don't see a provision about that in the law.

Secretary CONNOR. There is a provision that additional changes wouldn't be made without a notice period of 1 year, or there would be an interval in there.

Mr. ROGERS of Florida. That is after you have put in the change. I am talking about giving the industry the same approach that you do in the first instance.

Secretary CONNOR. The industry, even after the first instance, would have a responsibility because these would be minimum standards, and before changes are made in the minimum standards there would be the opportunity for the industry to do things voluntarily. There is provision for the standards to come off completely if the industry has raised the level to the point where they are no longer needed.

Mr. ROGERS of Florida. Of course, we all hope that, and this may be done, but I am talking about the way the law is written. Before we write the law, I want to know if you are not giving the industry an opportunity after your first period. I think this would be important to the committee.

Secretary CONNOR. It becomes a matter of administrative discretion.

Mr. ROGERS of Florida. Would you have any objection if we write into the law that they should have some period of time, just as you have in the first instance? Don't you think they should be given a chance?

Secretary CONNOR. I am thoroughly familiar, of course, with the necessities in automobile manufacturing for some leadtime before the new models come out. But we just haven't—

Mr. ROGERS of Florida. Would you have any objection to that?

Would you give them an opportunity to correct themselves in the first instance?

Secretary CONNOR. Congressman Rogers, I don't see what is needed beyond what is now in there, as I have indicated.

Amendments or withdrawals shall be effective on the date specified by the Secretary in that order which shall be no sooner than 180 days nor later than a year.

That is notice. That is time for adjustment. Are you suggesting that it needs to be extended?

Mr. ROGERS of Florida. No. What I am saying, Mr. Secretary, is that there should be some provision in the law that they may themselves initiate the changes and then come to you like you are letting them do in the first instance on additional changes.

Secretary CONNOR. That is quite possible, Congressman Rogers.

Mr. ROGERS of Florida. It is possible, but it is not in the law.

Secretary CONNOR. It doesn't say it specifically.

Mr. ROGERS of Florida. You would have no objection to that approach, I assume, since you do it in the first instance?

Secretary CONNOR. Quite frankly, I am not sure that it has to be specified in the law, but I will be glad to consider it further and make a suggestion.

Mr. ROGERS of Florida. I would be very much interested in this, because I think this should be established. If you are going to let the industry do something and they think they can, then I think they ought to have some opportunity to show you that they can do this.

Secretary CONNOR. We will be glad to consider that further; we just haven't referred precisely to that point.

Mr. ROGERS of Florida. Would you let us know by tomorrow or the next day? Would that give you sufficient time?

Secretary CONNOR. Yes, sir.

(The information requested follows:)

#### AMENDMENTS TO VEHICLE PERFORMANCE STANDARDS

During the course of the hearings, Mr. Rogers of Florida asked whether the initial two-year period during which industry could act by imposing voluntary safety standards upon itself should not be extended to apply also to improvements in any safety standards once issued by the Government. As we understand it, the question is, should the law establish an additional period of two years after a Federal safety standard has been issued, during which time the Government could not make any improvements in the standard, to give industry further time in which to make improvements voluntarily.

Subsection 102(c) of H.R. 13228, as presently written, authorizes the Secretary from time to time to amend or withdraw an issued standard. Amendments and improvement in issued standards would take effect under the proposed legislation no sooner than 180 days or no later than one year from the date the amendment or improvement is issued, unless an earlier or later date is desirable, and the Secretary publishes his reason for so finding. The Secretary would have, under H.R. 13228, the authority to amend or withdraw standards issued, depending on what the public interest justified under the circumstances that developed, whatever those circumstances might prove to be.

We believe that an additional two-year period of grace is undesirable. To bar the Secretary from acting for an additional two years after the issuance of a standard would, in effect, prevent the Government from making improvements which the public interest might require. It should be understood that, as H.R. 13228 is presently written, industry would not be barred from making voluntary improvements at any time, because Federal safety standards are minimum standards. Furthermore, H.R. 13228 encourages cooperation between the



Secretary and industry. If the industry wished the Secretary to amend a standard to include industry-developed improvements, the Secretary would cooperate to the fullest extent possible. Thus, in its present form, H.R. 13228 allows either industry or Government to improve issued safety standards.

On balance, therefore, we believe that the interests of the public in motor vehicle safety standards that may be issued should be preserved and the authority of the Secretary to make improvements under the proposed legislation should not be limited by barring subsequent action for a two-year period.

Mr. ROGERS of Florida. Let me ask you one more question and then I know my time will be up.

What do we do for aircraft safety, Mr. Boyd? Do we have a similar setup in the CAB on aircraft safety?

Mr. BOYD. Yes, sir.

Mr. ROGERS of Florida. Exactly?

Mr. BOYD. Not exactly.

Mr. ROGERS of Florida. How does it vary? Do you have a testing laboratory, and so forth?

Mr. BOYD. Yes, sir.

Mr. ROGERS of Florida. The Government does?

Mr. BOYD. Yes, sir.

Mr. ROGERS of Florida. Through FAA?

Mr. BOYD. Yes, sir. And also civil air regulations, Regulation SR422B, sets forth the minimum performance requirements which have to be fulfilled by each aircraft design.

Mr. ROGERS of Florida. Do you give the industry a chance?

Mr. BOYD. The industry doesn't have any chance. The industry has to meet these minimum requirements. It is certainly expected that as the industry is able to improve on the minimum, they will do so on their own and the FAA congratulates them. But the FAA requires that they meet the minimum.

Mr. ROGERS of Florida. Thank you.

Thank you, Mr. Chairman.

Mr. PICKLE. Would the gentleman yield?

Mr. ROGERS of Florida. My time is up.

Mr. PICKLE. With respect to safety features on airplanes, like a voice recorder, which is required on the plane, is that paid for by the manufacturer of the plane, or does the airline itself have to foot that cost? Does the FAA provide it, or what?

Mr. BOYD. The operator of the aircraft has to pay the cost just as the airline does, in this case, just as it has to pay for the radar.

Mr. PICKLE. If it is a Pan American plane, they have to pay for the cost?

Mr. BOYD. Absolutely; yes, sir.

The CHAIRMAN. Mr. Keith?

Mr. KEITH. Thank you, Mr. Chairman.

It is very nice to see you, Mr. Secretary.

We in Congress have to be many places at the same time, it seems. We have responsibilities, as you know, to all forms of transportation. I have just come from a meeting of the Merchant Marine and Fisheries Committee, and I was surprised there to discover an Executive order from the President dated in February 1962. Are you reasonably familiar with that?

Secretary CONNOR. What subject is covered by that, sir?

Mr. KEITH. Transportation.

Secretary CONNOR. Transportation in what form?

Mr. KEITH. Assignment of responsibility for transportation in times of national emergency.

Secretary CONNOR. Yes, sir; I am familiar with it.

Mr. KEITH. Do you consider that we are in a time of national emergency at the moment?

Secretary CONNOR. In certain respects; yes, sir.

Mr. KEITH. I noted that in your testimony, as in that of other witnesses, they stress the number of people killed in accidents as contrasted to war. Though they stress the importance of accidents, this does not necessarily minimize the importance of the war casualties.

In the meeting this morning in Merchant Marine and Fisheries, it was revealed that insofar as our ability to compete for transportation with other nations of the world in time of war is concerned, the responsibility rests essentially with your office.

Secretary CONNOR. Yes, sir, the emergency responsibilities are in the Department of Commerce and vested in the Under Secretary for Transportation.

Mr. KEITH. I only have 5 minutes and I would like to use them on a matter which is really not a primary responsibility of the Commerce Committee that is to say, ocean transport. However, in view of Mr. Friedel's interest in this problem, representing, as he does, Baltimore, and Mr. Rogers, who is a member of both Merchant Marine and the Commerce Committee, this is not entirely a tangential matter.

We were very surprised to find that so few tabs are kept on what is actually happening in the area of sea transport. Are you, by chance, familiar with the Rand report?

Secretary CONNOR. I know of it.

Mr. BOYD. Which Rand report?

Mr. KEITH. It appeared in 1963 and was an analysis of this Nation's ability to respond in time of need in the field of transportation, particularly ocean transport.

Mr. BOYD. Yes, sir; we have that study and I am generally familiar with it.

Mr. KEITH. The witness this morning from the Maritime Administration was unfamiliar with the study. It definitely pertains to his bailiwick.

All I am trying to do in this is to acquaint my colleagues and, incidentally, the public, with the relative urgency of these points. The witnesses here, in stressing the numbers of deaths that have occurred as a result of automobile accidents, have, I believe, downgraded the fact that most of these deaths are the result of pilot error, or poor judgment on the part of the drivers involved, rather than a lack of adequate safety measures in the automobiles of course, defects are important factors and I shall probably support the legislation before us.

But I do think it imperative at this time that this committee, the Congress, and, in particular, the Department of Commerce, stress the need for looking into what is going on in other countries of the world with reference to the merchant marine.

On my trip to Russia recently, I picked up information which is pertinent to these discussions only indirectly, but it is something to be considered in the field of merchant marine.



The fact is that the Russians in the next 10 years will leave us so far behind in the field of sea transport that we will be severely impeded in our efforts to win the support of the underdeveloped nations, in particular. We will have just a very small percentage of the shipping necessary for competing with the other maritime nations.

I do think we should play up the problem of auto safety at this particular time if it will be to the detriment of our ability to compete in sea transport. The matter is extraordinarily important to the Nation in our efforts to solidify the strength of the free nations throughout the world.

Thank you, Mr. Chairman.

Mr. FRIEDEL (presiding). We will recess until 2 p.m. this afternoon.

(Whereupon, at 12:07 p.m., the committee recessed, to reconvene at 2 p.m. the same day.)

#### AFTER RECESS

(The subcommittee reconvened at 2 p.m., Hon. John E. Moss presiding.)

Mr. Moss. The committee will be in order.

**STATEMENT OF HON. JOHN T. CONNOR, SECRETARY OF COMMERCE; ACCOMPANIED BY ALAN BOYD, UNDER SECRETARY FOR TRANSPORTATION; HERBERT HOLLOMON, ASSISTANT SECRETARY FOR SCIENCE AND TECHNOLOGY; AND ROBERT E. GILES, GENERAL COUNSEL—Resumed**

Mr. Moss. Mr. Mackay of Georgia, is recognized.

Mr. MACKAY. Thank you, Mr. Chairman.

Mr. Secretary, I want to compliment you on your statement, which is most heartening. I think it would be of interest to you as a historical footnote that Secretary of Commerce Herbert Hoover held a conference on traffic safety in 1924 when there were 20,000 deaths a year. That was called a "life and death" meeting.

In the ensuing 42 years the Congress has never yet assigned specific responsibility for traffic safety, so I commend you for the bill because I think that it does purport to assign specific responsibility for traffic safety.

Secretary CONNOR. We appreciate that, Congressman Mackay, particularly in view of your keen interest in this subject and the many contributions you have made in this thinking.

Mr. MACKAY. I also want to congratulate the Department on the transportation message because I thought it was eloquent, clear, and timely. I regret, however, that I sometimes think that the Transportation Department issue may swallow up the traffic safety issue in this Congress. I hope that doesn't result.

As you know, there are 44 Members of Congress who have supported the idea of a National Traffic Safety Agency.

Secretary CONNOR. Yes, sir; we are aware of that, and particularly your bill.

Mr. MACKAY. I want to ask you why the statutory assignment of responsibility to an agency is not acceptable to the administration.

Secretary CONNOR. In the drafting of this particular legislation, it was assumed that the Department of Transportation will be favorably received in the Congress and, therefore, a separate Department of Transportation will be established by the time of the final congressional action on this traffic safety bill.

If that proves not to be the case, then the appropriate amendments would have to be made so that this responsibility would come to the Department of Commerce until and if such a separate department is established. Within the Department of Commerce the responsibility undoubtedly would be assigned to the Under Secretary of Commerce for Transportation. In many respects it would be organized in a way that is contemplated in the bill that you have introduced.

It would seem to us that if there is a Department of Transportation, then the Secretary of that Department should have the discretion to organize the Department to handle this matter along with the other transportation matters in the way that can be done quite easily without the necessity for a separate agency.

Mr. MACKAY. As someone commented about that point of view, it is strictly the point of view of the Executive. I agree that everybody would like to have that latitude, but that still is not quite responsive, it seems to me, as to why the idea of an agency has been rejected. The explicit assignment of responsibility to a unit of Government to attack the traffic accident problem is essential, I think.

Secretary CONNOR. Congressman Mackay, the provisions that are recommended in this bill are very comprehensive, as you have indicated. They do get involved in what would be the work of several of the segments of the organization that is now contemplated for the Department of Transportation. Parts of it I think would have to be organized separate and apart from everything else, but I think this can be done without any question under the proposed Department of Transportation legislation.

Mr. MACKAY. I certainly intend to support the Department of Transportation legislation. But which department it is in is not the point that concerns me. It is whether or not this administration is willing to fix this responsibility for traffic safety in the excellent way that air safety has been assigned to the FAA, with an Administrator.

Secretary CONNOR. I don't think that there is any doubt that this responsibility would be centralized within the Department of Transportation. Mr. Boyd has worked on some of these organizational aspects. Perhaps you would want to get his comments.

Mr. BOYD. I think it is fair to repeat the old saying, Congressman, that comparisons are odious, because in this particular situation where you refer to the Federal Aviation Agency having an Administrator, the fact of the matter is that the Department of Transportation bill would eliminate the administrator as a statutory entity.

This in no way will diminish the responsibility of the person who is heading the aviation function in the Department of Transportation. But a concise answer to your question is that the Secretary of whatever department is involved is the one who is primarily and directly responsible for highway safety.



Mr. MACKAY. I would feel if we get a Department of Transportation that this would be more true than if we have to stay in the Department of Commerce where you have such a diffusion of responsibility in areas other than transportation.

I won't be argumentative about it. I will say this, that to we who have studied the problem the diffusion of attention to this subject is the crux of the difficulty that we have had, and I would hope that this department would give further consideration to the idea of the agency and the administrator, because I have come to Congress as an ex-legislator, and the Georgia Legislature and the Maryland Legislature and legislatures throughout the Nation are not building a uniform traffic environment because they haven't the slightest idea who can speak with authority.

I can't envision a Cabinet member speaking to the Georgia Legislature but I can envision an Administrator doing so.

In the structure of your research and test facility, is there any reason why the facility should not be as comprehensive as that envisioned in our legislation? That is, so it would give attention to the total phenomenon, not just to the physical side of it, the testing side of it, but the total phenomenon.

As I read your bill, your testing facility is not that comprehensive.

Secretary CONNOR. I think, Congressman Mackay, if you look not only at title II, which refers specifically to the Center, but to all the other research and development and testing functions that are provided for in title I and title III, the comprehensiveness emerges. I think as indicated in my statement about title III, a lot of the work that is contemplated there for cooperative activities with the States would be put in this Center.

I don't think our concept is any narrower than that envisaged in your bill, although the words used are different.

I think Dr. Hollomon could be responsive in more detail to this question because he has worked with this closely in trying to figure out exactly what activities should be centralized there.

Dr. HOLLOMON. While the plans have to be developed yet, the view that we have of the Center, as we have proposed in this legislation, is not to limit it at all. It has to do with how the driver reacts, the nature of the highway, the vehicle, itself, the interaction of the vehicle with the highway, problems associated with recovery from the crash.

Mr. MACKAY. What about the legal part?

Dr. HOLLOMON. I would think that legal problems would also be associated with the Center. In other words—

Mr. MACKAY. Is there anything that shouldn't be associated with the Center?

Dr. HOLLOMON. Yes. There are certain things for which other facilities already exist, for example medical facilities in NIH or in HEW, and an area for which I have some responsibility, which is measurement activities in the National Bureau of Standards, where one, for example, has expertise on questions of illumination.

Mr. MACKAY. I don't mean to put all of the labs in the same building. The Communicable Disease Center comes to my mind. The traffic accident is an epidemic, and I am interested in seeing a center

that deals with the total phenomena, not one that does all of the research.

Dr. HOLLOMON. There were two questions asked Mr. Boyd on which I would like to comment. First off, as I understand there would be a single responsible person for all of the traffic safety activities in a single place, whether this be in the Department of Commerce or be in the Department of Transportation.

The Center to which we refer is a physical entity. In other words, it would be a new place where we have to have certain kinds of facilities which do not now exist otherwise within the Government. I don't know whether we are talking about a center as a geographic place or a center as an organizational entity.

With regard to the facility, that facility we envision to do whatever is necessary over and above that which is already available.

Mr. MACKAY. I wish this could be stated more explicitly in the bill.

Mr. Chairman, I want to respect the 5-minute rule but I hope to be able to come back later.

Mr. Moss. Certainly.

The Chair wants to acquaint the members of the committee with the fact that Mr. Boyd has to leave not later than 3 o'clock. We have agreed to accommodate his request. He has a plane to catch.

The Chair will recognize Mr. Friedel.

Mr. FRIEDEL. Mr. Connor, I want to compliment you as I did earlier on your statement. I was glad to hear you say that the minimum standards would be applied to automobiles imported into the United States. I think the minimum standards on equipment would be very helpful to the whole automobile industry. This way there will not be the competition as to which is optional. They will all have to meet the minimum standards. That is very good.

There is one thing where you said the Federal Government should not enter into the design of the vehicle, and I am in favor of that. I wish you would elaborate a little bit more on that. Someone mentioned to me that there are some designs that have a very piercing fin or something else that might be objectionable, and although it is a design it might be injurious.

Can you elaborate a little bit more on that paragraph?

Secretary CONNOR. This question of minimum standards has certain positive aspects and certain negative aspects. I would imagine that the standards would be written in such a way that with respect to braking, for example, certain results have to be achieved in bringing the vehicle to a halt within a specified space of time.

Just how that is accomplished might well be left to the individual company and its designers.

Likewise, a standard might be in the form of a prohibition against certain exterior characteristics. And perhaps, further, some appurtenance with a cutting edge would fall within that standard. This wouldn't mean that the automobile companies still couldn't have great flexibility in designing the exterior of the car, but it would not be able to meet the standard if it did have the kind of apurtenance that you mentioned.

Here, again, Dr. Hollomon has given this question of standards and the relationship to design and engineering a great deal of thought.



Perhaps his comments could supplement mine.

Dr. HOLLOMON. I think the Secretary has made the main point. We would hope to establish standards which insure a certain minimum performance with respect to safety, such as the elimination of cutting edges, braking systems which operate in a certain way, steering gear which collapses under certain kinds of forces, prevention of the front end of the vehicle moving back too far on impact of a certain force.

How those standards would be met would be left to the manufacturer so long as tests would indicate that the standards were met. There is a fundamental difference in actually telling the manufacturer how to design and telling him what the minimum measurements are that he has to meet on an objective basis. That is what we mean by not telling him how to design but, rather, the minimum performance that the vehicle has to meet.

Mr. FRIEDEL. Thank you very much.

Mr. MOSS. Mr. PICKLE.

Mr. PICKLE. Thank you, Mr. Chairman.

I am glad to see you, Mr. Connor.

On these standards which you have referred to as basically Federal standards, do you have a compilation showing reactions of the various State highway commissioners and/or the Governors of the States as to this particular measure?

Secretary CONNOR. No, sir; we have not attempted to ascertain just what degree of support we would get from the various State officials. We do have a general feeling that the State officials having jurisdiction in this field would welcome the additional financial and other support which the Federal Government would provide under title III.

Mr. PICKLE. I think it is well that you would have the feeling, but I would like to go into a little more than just the feeling. Have you sent to the Governors a copy of this measure and have you asked the Governors or their designated highway officials for their reactions to this measure?

Secretary CONNOR. No, sir. There is a statute of which we are quite well aware that prevents Federal officials from trying to line up popular support that would put pressure on the Congress in this respect.

Mr. PICKLE. Mr. Secretary, I want to be sure that we understand. I didn't ask that question. I didn't ask if you had them for support.

Have you asked them for their judgment and/or suggestions on the bill, whether it is pro or con?

Secretary CONNOR. No, sir; we have not.

Mr. PICKLE. Do you plan to do it?

Secretary CONNOR. No, sir.

Mr. PICKLE. It would seem to me, Mr. Secretary, that it would be well to have this reaction from the various States. I am going to insist that we do have such a report from them. The State agencies have really done about all the safety work that has been done in this field, working with the automobile manufacturers.

In my own State of Texas I think we have perhaps the best highway engineer, though other States in the Nation would feel the same way. We have a tremendous department. They are constantly doing work in the field of safety, establishing standards, new construction.

It would seem to me that their reaction would be invaluable in the consideration of any measure before us.

I am going to insist to you and to the chairman of this committee that before we take a markup on this bill that we have this report from the various States.

Secretary CONNOR. If we are requested by the committee, Mr. Pickle, we would be delighted to take the steps necessary to ascertain their views.

Mr. PICKLE. I am certain the chairman of this committee, then, will make such a request of you.

(The information referred to follows:)

#### STATE ADVICE AND PARTICIPATION IN THE PREPARATION OF STANDARDS

Two separate and distinct types of standards are required under H.R. 13228. The Title III standards are being developed with rather full cooperation and coordination of the States. These standards are being developed pursuant to the "Baldwin Amendment" which was enacted last year and which is recodified in H.R. 13228. The Federal Highway Administrator has established an Advisory Committee for this purpose. It includes representation from the American Association of State Highway Officials, the American Association of Motor Vehicle Administrators and the International Association of Chiefs of Police. Meetings of this Advisory Committee have been held and views in writing have been obtained on which to base a draft of tentative standards. When the draft is available the Committee will be convened for a review. In addition, the Federal Highway Administrator has written to some 60 other interested organizations inviting their views which will be considered in the drafting of these standards.

Mr. PICKLE. This will lead into my next question: All through the measures you talk in terms of the Secretary establishing these standards, or the bill speaks of that, and inaugurating certain safety tests. This would give the Secretary of Transportation a considerable authority.

Secretary CONNOR. Yes, sir; it would.

Mr. PICKLE. Though all of us are in agreement with the objectives of this bill, at the same time it sets up another department with tremendous power in talking about safety or any other field.

It would seem to me it would be very helpful to you, if you were Secretary of Transportation, if you had an advisory committee of State officials, either engineers or leading traffic officials in the States, or a group representing the private industry, as members of such an advisory committee.

How would you feel if we put into the measure a proviso for an advisory committee?

Secretary CONNOR. Personally, Congressman Pickle, I believe in the importance of advisory committees in governmental activities. We haven't given this any specific attention, but my initial reaction is that it would be helpful. I would like to think about it a bit and come back with a specific recommendation.

Mr. PICKLE. I am glad that you think well of these advisory committees. I do not wish to be too blunt or too candid in my statement, but I wish to remind the Secretary that we passed the high-speed ground transportation measure last fall. As you and I discussed, and Mr. Ball discussed, they had an advisory committee on that.

If you like these advisory committees, it would seem to me like you could have appointed that advisory committee already.

As of January, you have already given over \$11 million worth of contracts and you haven't called that advisory committee together



yet. I understand, and I have been told, we are thinking about it. You like the advisory committees yet you don't do anything about them.

Wouldn't we expect the same progress in this?

Secretary CONNOR. Sticking to the advisory committee that you mentioned, the final clearances for membership have been obtained and the invitations to participate I think are on my desk today ready to go out. We have had some disappointments because of the illness of some people we hoped would serve, but this is now in form and we are ready for action.

Mr. PICKLE. I am glad to hear that, Mr. Secretary. My whole point is that I would like to see us get as much cooperation, as much advice, counsel, and experience that the various State agencies have had in this field, and, likewise, to get advisory committees and to work with them as we push forward in this field. I think that is mandatory.

After all, Mr. Secretary, we will reach a point, no matter what our standards are here, it has to be, in force and effect, practically administered through the various States because they register the automobiles, set up the licensing, and unless we do have the States in this on a wholesome basis we can anticipate difficulty below.

Secretary CONNOR. Mr. Boyd has additional comments on this subject.

Mr. BOYD. The statement you made about the States having done most of the work in highway safety is certainly correct, so far as I know, and the bulk of that has been done on the basis of funds which were generated in part by the States and in part through the Bureau of Public Roads from appropriations made available by the Congress.

Efforts of coordination have been carried out through the Bureau of Public Roads and the American Association of State Highway Officials, of which the State highway engineer of California is now or will soon be the president.

This coordination is formal and it has been going on for years with regular meetings between the Bureau of Public Roads and the AASHO officials. In the President's message on transportation he indicated, I believe, that he would be issuing an Executive order in connection with traffic safety. Part of that Executive order will provide for the establishment of an advisory committee composed of individuals outside the Federal Government, of the advisory council type to which you are referring, in addition to which there will be provision for formal coordination of the various advisory committees acting now within the Federal Government.

(The following information was submitted by the Department of Commerce:)

#### LIGHTING ON THE FEDERAL-AID HIGHWAY SYSTEMS

Safety benefits that accrue from roadway lighting are well recognized. The Bureau of Public Roads has concurred in "An Informational Guide for Lighting Controlled Access Highways," prepared by the Committee on Planning and Design Policies of the American Association of State Highway Officials, June 29, 1965 (copy will be found in committee files). The Bureau issued an Instructional Memorandum (attachment A) dated October 1, 1965, outlining the basis in which the Bureau would participate in lighting.

Lighting projects like any other highway construction project must be initiated by the State and the Bureau will approve lighting on a project-by-project basis

when it meets the standards set forth in the Informational Guide and the Instructional Memorandum referred to above.

The Bureau recognizes, too, that present day traffic volumes and other conditions may not warrant the installation of lighting at this time but it will participate with a State in the cost of installing ducts and other accessories placed during initial construction to facilitate future lighting installation.

#### ATTACHMENT A

U.S. DEPARTMENT OF COMMERCE,  
BUREAU OF PUBLIC ROADS,  
Washington, D.C., October 1, 1965.

Instructional Memorandum 40-2-65, 32-29.

Subject: Lighting Controlled Access Highways.

Supersedes: Instructional Memorandum 40-2-60, issued April 15, 1960.

"An Informational Guide for Lighting Controlled Access Highways," revised 1965, is now available from the American Association of State Highway Officials at \$0.25 per copy. Informational copies have been furnished to State Highway Department offices. Public Roads field offices should order copies as they may need them.

This memorandum, with reference to the revised AASHO guide, outlines the basis for determinations for the installation of lighting on all controlled access projects on the Federal-aid highway systems including the Interstate system.

#### MAJOR CHANGES IN AASHO GUIDE

There are new definitions for several special terms and factors and redefinition of some older terms. These agree with those used in American Standard Practice for Roadway Lighting, ASA 1963. The term and definition for average maintained illumination have been changed in such a manner that it has a significant effect on standards for light intensity. The term is now called "average level of horizontal illumination" which is the value representing the condition when the light source is at its lowest output and the luminaire is in its dirtiest condition. This revision has led to increased levels of illumination. Also, there is change in the values for "uniformity ratio" and the luminaire maintenance factor.

Statements for warranting conditions for providing lighting are much the same as before. Those citing current ADT volume values are now shown with urban, suburban and rural values.

There is added explanation on the techniques of lighting design. Representative chart data are given to show the relation of luminaire spacing, uniformity ratio and initial average footcandles for commonly used equipment. There are new sections on: (a) lighting of bridges, overpasses and underpasses; (b) safety and research; and (c) effects of mounting heights above 30 feet.

#### BASIS FOR FEDERAL-AID PARTICIPATION

The following statements govern in the determination of Federal-aid participation in the costs of lighting controlled access highways.

1. Federal-aid fund participation in the cost of continuous lighting on freeways in rural areas may be approved only on those sections when the current ADT is 60,000 or more.

2. The use of Federal-aid funds may be approved for continuous lighting on controlled access highways in built-up urban or suburban areas where all active streets and thoroughfares are lighted and for complete or partial interchange lighting on unlighted freeways when one or more of the warrants outlined in the guide are met.

3. The use of Federal-aid funds may be approved for continuous highway lighting designed for average horizontal illumination of at least 0.6 footcandle. Corresponding average initial values are about 0.8 to 1.2 footcandles. A uniformity ratio of 4:1 to 6:1 normally can be attained with this level of illumination. A lighting design with uniformity ratio better than 4:1 (i.e., 3:1) should not be approved where it entails a higher installation cost because of closer spacing of luminaires and initial levels of illumination above 1.2 footcandles.

4. On projects where the lighting is warranted under Cases A-4 and B-6 (local governmental agency finds sufficient benefit to pay an appreciable percentage of



the cost) the local agency is to pay at least 50 percent of the total installation cost, regardless of the Federal-aid pro rata. Federal-aid participation may be approved in the applicable pro rata of the State's share of the costs only. In these cases the Division Engineer should check to insure that local officials have a complete understanding of their commitments with the State for anticipated electrical power and luminaire maintenance costs.

5. There may be Federal-aid participation in the installation of lighting where found to be an essential part of (a) a safety rest area and (b) official weigh stations in accordance with PPM 50-8.

6. Division Engineers should encourage installation of promising new types, arrangements or special adaptations of highway lighting so as to obtain operating experience and data. There may be Federal-aid participation in such evaluation project installations when established in accordance with PPM 60-2.

#### OTHER ITEMS

The design of highway lighting on Federal-aid projects is to be in accordance with the "Summary of Guide Values" in the AASHO Guide.

The installation of lighting is particularly well suited to the stage construction principle. As a general definition the "current ADT" should be that on the highway after it has been opened and traffic patterns established. Normally, this would be several months after all essential highway construction is completed. Because of the uncertainties associated with predicting traffic volumes, the States should be encouraged to defer lighting projects until operating traffic volumes satisfy the warrants. This is particularly fitting where moderate changes in the predicted traffic volumes may reverse an initial finding.

Before completion of the Interstate highway program, lighting may be installed with available FAI funds, when the traffic volumes reach those values stated in the AASHO Guide warrants.

Where highway lighting may be likely in the future there may be Federal-aid participation in the cost of ducts and other accessories placed during initial construction to facilitate future lighting installation. Usually this will be limited to structures and conduits crossing traffic lanes.

For most highway lighting installations, the supplier furnishes electricity at the design voltage of the lighting system. In some cases, the user has the option of taking electric service either at the primary or the secondary voltage. When electricity is purchased at the primary voltage, the user may be required to furnish and install the transformers, in consideration of which a credit may be given on the electric bill in the form of a lower rate, a discount, or an equipment ownership credit. If the State or local authority elects to contract for electricity under this type of option, Federal-aid funds should not participate in the cost of transformers. Where the supplier in the regular conduct of business does not furnish and deliver electricity at the design voltage of the lighting system, Federal-aid funds may participate in the cost of transformers.

G. M. WILLIAMS,

*Director of Engineering and Operations.*

Mr. PICKLE. Do you know whether AASHO has been asked about this specific measure, for their advice and recommendations?

Mr. BOYD. AASHO has been asked to comment on the proposed standards yes, sir.

Mr. PICKLE. Thank you, Mr. Boyd.

This will lead to my last question: Financing of this program provides for a total of some \$700 million over a 6-year period. What amount is contemplated to be spent the first year? Do you recall?

Secretary CONNOR. The financing of this program in the first year—well, to add them up separately, title I, the vehicle safety standards, the proposed authorization would be \$3 million in the first year; facility planning, just the planning stage, would be \$3 million; title III, grants to the States, \$40 million; research contemplated would be \$10 million. That is a total of \$56 million for this program under the bill in the first year.

Mr. PICKLE. That is approximately 10 percent?

Secretary CONNOR. Yes, sir. It accelerates as the years go on.

Mr. PICKLE. There is a diversion of funds from the highway trust funds to help finance this as well as from the general treasury. Therefore, that is all the more reason why States should be satisfied or happy with the measure, if we could ascertain their feelings. We can't, I know, wait and pass legislation after seeing if all States are in agreement. I recognize that.

Secretary CONNOR. On the financing of this, although the money beginning in the first year as proposed would come out of the highway trust fund, there would be a replenishment of the highway trust fund through the revenue measure that is about to be sent by the administration to Congress, providing that 1 percent of the auto excise tax would come into the highway trust fund for the purposes of this safety program and the beautification program that was authorized last year.

So there would be no infringement of the money in the highway trust fund available for highway construction.

Mr. PICKLE. I don't think they would feel they were being hard put except that it is a diversion of some of their funds, a temporary diversion.

Secretary CONNOR. No, sir; there would be no diversion if this revenue bill that is being proposed by the administration is accepted by Congress. Right from the start there would be money available in the highway trust fund from the 1-percent auto excise tax for this purpose.

Mr. PICKLE. I thank you, Mr. Secretary.

That is all, Mr. Chairman.

Mr. MOSS. Mr. Farnsley.

Mr. FARNSLEY. Thank you, Mr. Chairman.

Thank you, Mr. Secretary, for saying a kind word for street lights and highways lights. I have been on the Governor's Commission of Kentucky on Highway Safety since it started, and I do have a deep interest in this problem. I got the Library of Congress to give me a study on crime and delinquency and the possible effect of street lighting. Crime and delinquency are not in your Department, but public roads are.

Secretary CONNOR. Yes, sir; public roads is.

Mr. FARNSLEY. But crime and delinquency are not?

Secretary CONNOR. No, sir; it is not.

Mr. FARNSLEY. I would like to read you a page or two, double spaced; they say:

In many of the cities experiencing lower crime rates after their street lighting was improved, a drop in the number of traffic accidents was also noted.

In Nashville, Tennessee, it was reported that following a lighting program, the night traffic accident rate declined from 40 percent to 29 percent, despite a 50 percent increase in motor vehicle registration over the same period.

Indianapolis noted a 54 percent decrease in night traffic accidents, after the initiation of a comprehensive street lighting program.

The fact that Chicago's Northwest Expressway is continuously lighted over its 16-mile length is alleged to be responsible for the low traffic fatality rate on this highway. In 1961, there were .74 deaths per 100,000,000 vehicle miles on the Chicago Expressway, as compared with a national average of 2.3 deaths per 100,000,000 vehicle miles on all expressways.

An additional benefit occurred in the case of Hartford, Connecticut, drivers.



Improved street lighting which cost the city \$20,000 was followed by a lower number of traffic accidents which in turn resulted in the reduction of insurance rates by eight percent over a period of five years. This saved 22,500 car-owning residents \$4.00 each per year.

Between 1953 and 1960, new lights were installed in nine locations in the State of Virginia. A study made by the Virginia Department of Highways indicated that the number of traffic accidents at these locations decreased 38 percent and the traffic fatalities dropped 90 percent.

In its reporting of 1963 traffic fatalities, the Montana Highway Patrol classified the fatal accident statistics according to whether they occurred in daylight, in darkness where the street was lighted, or in darkness on an unlighted street. The results are shown in this table:

	Total accidents	Fatalities
Daylight.....	5,532	76
Lighted streets and highways.....	1,113	15
Unlighted streets and highways.....	2,285	88

These statistics show that the ratio of deaths to accidents on dark streets was one death per 25.9 accidents, while the ratio of fatalities to the number of accidents was virtually the same in the case of daylight accidents (1 to 73.8) and streets lit at night by artificial lighting (1 to 74.2).

The Illuminating Engineering Society (IES) is the authoritative source of technical knowledge on lighting in the United States and Canada. The IES has the responsibility for establishing a standard practice for street and highway lighting.

We hear a lot about standards. I know the automobile manufacturers are wonderful people and do not want to hurt anybody. They want to be in business. I know the drivers are doing the best they can. But I am not sure the Government is doing the best it can. That is you and me. I don't think we are doing any harm intentionally, but I don't think we have gotten the Bureau of Public Roads to realize that people can't see at night as well as in the daytime. It will take years to research this, I understand.

I also think it has been proven that the windshield cuts out 10 percent of the ordinary adequate light and if it is dirty, which it ordinarily is, as the doctor surely knows, it cuts out 30 or 40 percent.

Then if you have glasses, that is 10 percent again, if they are clean. Well, it is very hard to see where you are going. These guys set up the standards. We have the standards and the research. I am sure Public Roads will tell you it will cost 20 times this but they are engineers. You and I know that you just can't argue with an engineer. That doesn't mean they are not good guys and noble characters, but they know so much.

The Library of Congress says:

In the case of highway lighting, illuminating engineers say the lighting cost is generally less than 1 percent of the total cost of the highway. Installation of adequate lighting is considerably cheaper if it is done at the time the highway is constructed.

Under this program, could you convince the lighting engineers to put lights in?

Secretary CONNOR. I think there is enough language in my statement to show that lighting does play an important role in accidents and there is authority to provide for adequate lighting of the highways that are built; yes, sir.

Mr. FARNSLEY. But you are talking about doing research on it. I am talking about putting them in.

Secretary CONNOR. We are talking about research on the whole picture, the relationship of these factors one to the other. That does require more research. As far as lighting in the highways that are being constructed now, this is going forward and it is authorized in the present program.

Mr. FARNSLEY. It is not going forward in Kentucky except in a few intersections.

Your eyes are wide open for the country and you come in where the lights are and it is a mess. It appears that the engineers don't know that:

The police chief of Gary, Ind., justifies such expenditures are important.

Secretary CONNOR. This is all an important subject, Mr. Congressman, and we recognize this.

Mr. FARNSLEY. Why don't you do something?

Secretary CONNOR. We are on the Interstate Highway System.

Mr. FARNSLEY. How many miles of it are lighted miles?

Secretary CONNOR. The whole Interstate Highway System, of course, is not lighted, by any means. But at places where experience indicates that lighting is needed, such as interchanges, these are well lighted.

Mr. FARNSLEY. How about Federal-aid roads?

Secretary CONNOR. The 50-50?

Mr. FARNSLEY. Yes.

Secretary CONNOR. I don't know whether we have any study on the percentage of that which is lighted.

Mr. FARNSLEY. We are killing people where experience doesn't indicate—well, never mind.

Secretary CONNOR. We do not have information available on that. We will try to get it and insert it into the record.

Mr. FARNSLEY. I don't want it. I know what is happening. Everybody does, but the Bureau of Public Roads. I don't mean to be childish about this but it is well known people can't see at night. It is well known we kill most of them at night. It is well known if we put in street lights you don't kill them. You have a jillion dollars, why don't you put in street lights? The States would have to pay for the electricity. It is well known that that is the main cause.

I am just a freshman Congressman. Nobody is going to listen to me. They are not going to listen to you either, probably, but at least I get it out of my system and tell you about it.

Secretary CONNOR. We are in the same boat.

Mr. MOSS. To my good friend I would like to say in recognition of the long period you had to wait as a freshman Congressman, I gave you 10 minutes instead of 5 minutes.

Mr. FARNSLEY. I am sorry, I made a speech, Mr. Chairman.

Mr. MOSS. Mr. Younger?

Mr. YOUNGER. I have no questions, Mr. Chairman.

Mr. MOSS. Mr. Friedel.



Mr. FRIEDEL. Mr. Secretary, back in 1956 we had a traffic safety committee and we went through all the plants, General Motors, Chrysler, Ford, American Motors. I was greatly impressed with the research work that they were doing. We saw a lot of known safety devices that were optional equipment, not standard equipment.

I think you will find a lot right in their own plants, devices from their research, that were immediately offered to the public. But, of course, if you put it on one car it would have to be standard equipment for all cars, and that would be a matter of competition.

Going back to the repealing of the laws on safety belts and the brake fluid, I am perplexed on one other thing. We passed a bill last year on clean air, that all automobiles would have to have new mufflers. This bill would repeal that law if we pass it?

Secretary CONNOR. No, sir.

Mr. FRIEDEL. Why? Is it repealing the other two laws? I am still concerned about known standard safety devices. I am hoping that we can correct the language so that these laws are not repealed.

Secretary CONNOR. Congressman Friedel, we gave our general counsel a chance to explain it and apparently he didn't succeed, so we will call on our scientist, Dr. Hollomon. He thinks he can explain it.

Dr. HOLLOMON. The two bills in question, the brake fluid bill and the seat belts bill have, we believe, certain deficiencies with respect to enforcement, inspection, and subsequent penalties. In this bill, for mandatory standards, the responsibility for enforcement of the provisions of the act is much broader and much more clearly spelled out.

Therefore, we would continue to have these standards although they would be subject to the much more clearly spelled out provisions of this bill. They would be included within this bill. Repealing the act does not repeal the standards. It simply repeals the legislation under which the standards are written and they are written under much more general and much broader legislation in this bill.

Mr. FRIEDEL. But they will be included in this bill?

Dr. HOLLOMON. Yes, sir.

Mr. FRIEDEL. Where is that in the bill?

Dr. HOLLOMON. On page 20 of the bill, section 112(b), in which it states, "Standards issued under the laws repealed in this section shall continue in full effect and may be amended as if they had been effectively issued pursuant to section 102. Such standards shall, after enactment of this act, be subject to the enforcement and all other provisions of this title."

In other words, what it does is to maintain the standards in full effect but, however, it makes them subject to the enforcement procedures and so forth that are much more clearly spelled out under this bill.

Mr. FRIEDEL. In other words, this is a technical repeal but it is included in this bill with stronger provisions.

Dr. HOLLOMON. That is right. It is a transfer, essentially, of those acts, a technical repeal, and makes them subject to this bill. It is a drafting change but we believe it strengthens our position with respect to these two standards.

Mr. FRIEDEL. Thank you.

Mr. MOSS. We have a unanimous-consent request by Mr. Younger that the report prepared by the Library of Congress answering a

request of Mr. Farnsley be included in the record at this point. Is there objection?

Hearing none, the report will be so included.

(The report referred to follows:)

THE LIBRARY OF CONGRESS,  
LEGISLATIVE REFERENCE SERVICE,  
Washington, D. C., November 2, 1965.

HON. CHARLES P. FARNSLEY,  
House of Representatives, Washington, D.C.

Dear Mr. FARNSLEY: In answer to your request for a study on the possible relationship between street lighting and crime, the Education and Public Welfare Division of the Legislative Reference Service prepared and sent to you a memo dated April 28, 1965.

The interest shown by other members of Congress in this subject has been so great that we decided to expand the material and issue it as a report. In this way we could more easily answer the many requests we have received for the information.

Sincerely yours,

HUGH L. ELSBREE, *Director.*

#### THE IMPACT OF STREET LIGHTING ON CRIME AND TRAFFIC ACCIDENTS

J. Edgar Hoover has said, "It is axiomatic that darkness is an ally to crime. The thief, the arsonist, the rapist, the peeping tom and all other perverse individuals often depend on darkness to cloak their misdeeds and conceal their identities."<sup>1</sup>

Twelve times as many crimes of violence are committed at night as in the daytime. Major crimes that occur at night cost the nation about \$20 billion every year. In Salt Lake City over 95% of all aggravated assaults take place at night. In Minneapolis 92% of the burglaries occur after dark. In Pittsburgh 85% of the stolen cars are taken at night.<sup>2</sup>

In a recent survey of police officials may by the Street and Highway Safety Lighting Bureau, it was reported by police chiefs that from two-third to three-quarters of all crimes are committed at night. Of these, an average of two-thirds took place in dimly lit areas.<sup>3</sup>

The daily average of burglaries in the months of December, January, February, and March of 1961 was 12 percent above the rest of the year. These are the months when periods of darkness are the longest. Another 1961 survey revealed that about 76 percent of the nighttime burglaries occurred in buildings where no lights were left burning.<sup>4</sup>

The National Safety Council reports that in 1963 43,600 deaths occurred in traffic accidents. Of these, 53% or 23,100 resulted from night accidents. Since nighttime traffic is only one-third that of the daytime hours, the night death rate is two and half times as great as the day rate—10 deaths per 100 million vehicle miles at night as compared with 4 deaths per 100 million vehicle miles during the day.<sup>5</sup>

One expert has undertaken an analysis of the causes of traffic fatalities taking into account factors such as drinking, improper driving, and defective vehicles, which would be responsible for both daytime and nighttime accidents. After subtracting these accidents from the total, he estimates that in the year 1963 darkness on streets and highways apparently accounted for 8,030 fatalities.<sup>6</sup>

John E. Ingersoll, Assistant Director of the Field Service Division, International Association of Chiefs of Police, made this statement in a speech before a Community Lighting Conference in Chicago, in 1962: "It is the considered opinion of many responsible law enforcement officials that well conceived and

<sup>1</sup> A Brighter Las Vegas. Las Vegas Sun, January 10, 1965.

<sup>2</sup> Don Murray. How Bright Lights Reduce Crime. Coronet, February 1960, p. 30.

<sup>3</sup> Police Chiefs Say "Light Deters Crime." Distributed by Street and Highway Safety Lighting Bureau, 55 Public Square, Cleveland 13, Ohio.

<sup>4</sup> John Edgar Hoover. The Lighted Way. General Federation Clubwoman Magazine, February 1963.

<sup>5</sup> J. Parker Heck. Traffic Accidents Claim 43,600 Lives in 1963. Street and Highway Lighting, 1964 Third Quarter, pp. 12-13.

<sup>6</sup> *Ibid.*



developed streetlighting programs have decidedly beneficial effects on crime and traffic conditions. . . . Most police chiefs would welcome some way to minimize the effects of darkness. Many of our problems would then be solved. Because we obviously cannot completely eradicate darkness, then we must look for ways to minimize its dangers to public safety. We must learn more, for example, about the effective use of artificial light."

In a number of studies undertaken during the past ten years an attempt has been made to measure the effect of improved street lighting on the incidence of crime and traffic accidents. The specific conditions in each city mentioned below are different, but in all cases the conclusions reached are that fewer crimes are committed and fewer traffic accidents occur following a significant increase in the level of illumination.

#### STREET LIGHTING AND CRIME

During a two-year period (1953-1955) more than 5,000 new lights were installed along every mile of the streets of Gary, Indiana. A tabulation of reported crimes showed that the number of criminal assaults reported declined more than 70% and robberies decreased more than 60%. The decrease occurred in spite of a 27% increase in the population of Gary during the two-year period.<sup>7</sup>

In a comprehensive street lighting effort in McPherson, Kansas, a light was installed for every 2½ homes in the residential area. The project resulted in a sixfold increase in brightness. The incidence of nighttime prowling, window peeping, and burglary in the area was reduced 92%. The relighting in Chattanooga, Tennessee, of a 12-block district which had experienced a very high homicide rate was followed by a 70% reduction in major crimes committed there.<sup>8</sup>

In larger cities, too, a reduction in crime has followed improved street lighting program. In 1949 officials in Cleveland began a comprehensive program to improve street lighting in that city. When one-third of the lights had been installed, a check of crime statistics showed that the number of assaults reported had declined by one-third. Purse snatching had been reduced 78%, and the incidence of other night crimes was down 17%.<sup>9</sup>

The program in Indianapolis, Indiana, involves the installation of 1,000 new lights each year. Crime and traffic reports are used to pinpoint those streets most in need of new lights. In 1960, there was a 60% reduction of nighttime crime on the streets which had the new lighting.<sup>10</sup>

In 1957, New York City officials decided to try an extensive street lighting program in an 111-block area in five of the most crime-ridden precincts. Earlier efforts to reduce the crime rate, such as saturating the area with plainclothesmen, had been only partially successful. The improved lighting fixtures provided 125% more light. Crime statistics were kept for the three-month period following the relighting program to be compared with those prior to installation. In this three-month period, there occurred a 71% reduction in the number of crimes reported.<sup>11</sup> During the next two years, the incidence of murder, assault, and rape dropped 49% in this district, and juvenile complaints declined 30%.<sup>12</sup>

A study made in Boston in 1959 used a different method but obtained the same results. A neighborhood committee in the South End, where a high crime rate exists, pinpointed the exact location of 104 offenses, from purse-snatching to assault, committed between August and December 1959. The results showed conclusively that on the blocks which had modern lighting fewer crimes were perpetrated.<sup>13</sup>

One writer<sup>14</sup> agrees with others that street lighting is an important factor in crime prevention and traffic safety, but he also points out that many variables are involved in compiling statistics of this sort. Such factors as which types of

<sup>7</sup> Don Murray. *Op. cit.*, p. 33.

<sup>8</sup> *Ibid.*, p. 32.

<sup>9</sup> Lighting Can Cut Crime. The American City, May 1964, p. 131.

<sup>10</sup> Planned Light Prevents Crime and Reduces Accidents. The American City, March 1963, pp. 125-126.

<sup>11</sup> Hyman Goldberg. Crimes of Darkness. Cosmopolitan, April 1959, pp. 60-65.

<sup>12</sup> Lighting Can Cut Crime, *op. cit.*, p. 131.

<sup>13</sup> Editorial. Christian Science Monitor, June 27, 1959.

<sup>14</sup> Paul C. Box. Accident and Crime Prevention Experience With Modern Roadway Lighting. A paper presented at the Roadway Lighting Forum, reprinted in Street and Highway Lighting, 1964 Second Quarter, pp. 19-27.

crime are considered, whether crimes taking place in the lighted area or throughout the whole city are used, and whether crimes occurring both during the day and night are included can have a significant effect on the resulting statistics.

He cites a study made in one city where an increase of 250 percent in lighted streets took place from 1950 through 1954. When comparisons were made between the percentage of crimes committed at night, no reduction occurred in the categories of rape or larceny. A slight reduction appeared in highway robbery and burglary, and a significant decrease (17%) in auto thefts was recorded. However, a comparison of certain crimes during the peak month of October before and after the lighting was installed showed reductions of 16 percent in assaults, 33 percent in robberies, 5 percent in auto theft, and 10 percent in burglary.

"In this study, incidentally, great opportunity existed for misuse of statistics. The ones which I have quoted show the reductions found by measurements of the *percentage* change in night crimes. Had the actual change in *number* of night crimes been used (without regard to the number occurring during the daylight hours) then assaults could have been said to have been reduced from 24 night crimes in October 1945 to only 13 in October 1954. This would have been an apparent reduction of 54%.

"Similarly, robberies were numerically reduced from 26 at night in 1945 to only 6 at night in 1954. This reduction would have amounted to 77%. I have given these somewhat confusing figures to you solely for the purpose of illustrating the care which must be taken in applying statistics."

The editorial writer for the Christian Science Monitor concludes: "These studies made in blight-threatened neighborhood 'laboratories,' should provide valuable information for city councils, city managers, and voters in all communities debating the usefulness of this weapon for preventing crime. Lights are not, of course, the whole answer. But they are an important—and relatively inexpensive beginning to an over-all attack."

#### STREET LIGHTING AND ACCIDENT RATES

In many of the cities experiencing lower crime rates after their street lighting was improved, a drop in the number of traffic accidents was also noted.

In Nashville, Tennessee, it was reported that following a lighting program, the night traffic accident rate declined from 40% to 29%, despite a 50% increase in motor vehicle registration over the same period.<sup>15</sup> Indianapolis noted a 54% decrease in night traffic accidents, after the initiation of a comprehensive street lighting program.<sup>16</sup>

The fact that Chicago's Northwest Expressway is continuously lighted over its 16-mile length is alleged to be responsible for the low traffic fatality rate on this highway. In 1961, there were .74 deaths per 100,000,000 vehicle miles on the Chicago Expressway, as compared with a national average of 2.3 deaths per 100,000,000 vehicle miles on all expressways.<sup>17</sup>

An additional benefit occurred in the case of Hartford, Connecticut, drivers. Improved street lighting which cost the city \$20,000 was followed by a lower number of traffic accidents which in turn resulted in the reduction of insurance rates by 8% over a period of five years. This saved 22,500 car-owning residents \$4 each per year.<sup>18</sup>

Between 1953 and 1960, new lights were installed in nine locations in the State of Virginia. A study made by the Virginia Department of Highways indicated that the number of traffic accidents at these locations decreased 38% and the traffic fatalities dropped 90%.<sup>19</sup>

In its reporting of 1963 traffic fatalities, the Montana Highway Patrol classified the fatal accident statistics according to whether they occurred in daylight, in darkness where the street was lighted, or in darkness on an unlighted street. The results are shown in this table:

<sup>15</sup> Paul C. Box, *op. cit.*, p. 21.

<sup>16</sup> Christian Science Monitor, *op. cit.*

<sup>17</sup> A Brighter Las Vegas. *Op. cit.*

<sup>18</sup> Planned light prevents crime and reduces accidents. The American City, March 1963.

<sup>19</sup> Continuous lighting reduces accidents. The American City, September 1963.

<sup>20</sup> Modern Lighting for \$1 a Year. The American City, August 1964, p. 121.

<sup>21</sup> Lighting Cuts Accidents on Virginia Highways. The American City, March 1964.



	Total accidents	Fatalities
Daylight.....	5,532	75
Lighted streets and highways.....	1,113	15
Unlighted streets and highways.....	2,285	88

These statistics show that the ratio of deaths to accidents on dark streets was 1 death per 25.9 accidents, while the ratio of fatalities to the number of accidents was virtually the same in the case of daylight accidents (1 to 73.8) and streets lit at night by artificial lighting (1 to 74.2).<sup>22</sup>

#### LIGHTING STANDARDS AND COSTS

The Illuminating Engineering Society (IES) is the authoritative source of technical knowledge on lighting in the United States and Canada. The IES has the responsibility for establishing a standard practice for street and highway lighting. Such a code is then submitted to the American Standards Association (ASA) for acceptance, rejection, or modification. Once approved, a Standard Practice represents a guide to minimum good practice, taking into account current technical knowledge and prevailing economic factors. The most recent Standard Practices in the area of street lighting were published in 1962.

According to J. Parker Heck, Education Director, Street and Highway Lighting Bureau, fewer than 100 of the more than 18,000 incorporated towns and cities in the United States meet minimum lighting code standards prescribed by ASA.<sup>23</sup> The Edison Electric Institute has estimated that not more than 15% of the downtown streets in the nation are adequately lighted, and only about one-tenth of one percent of the streets in residential areas meet the ASA minimum standards.<sup>24</sup>

According to the Edison Electric Institute, "the chief deterrent to adequate street lighting is one of cost."<sup>25</sup> It is difficult to make a cost estimate for improving street lighting in a city, State or the nation due to the many variables involved. Experts from the Edison Electric Institute have stated: "So much depends on the existing local conditions that such an estimate if it were to have a semblance of validity would have to be made for each individual community. For example, the present level of street lighting intensity varies greatly not only between cities, but also between areas in the same city. There is also a wide variation in the type and cost of fixtures used to obtain the same level of illumination. Some communities own all the street lighting equipment and contract with the utility for electricity and also inspection and maintenance. Others only buy electricity. In still others the utility charges include provision for ownership of some or all of the equipment as well as inspection, maintenance, and electricity."<sup>26</sup>

Various cities have undertaken comprehensive street lighting programs and have given broad estimates of the costs involved. Beginning this year, 3,000 street lights are to be installed on 73 miles of Las Vegas streets. The cost is estimated to be between \$1.5 and \$2 million.<sup>27</sup> In Seattle, Washington, 24,000 new fixtures are needed to bring 1,225 miles of residential streets up to IES standards. The cost of this project is \$4 million.<sup>28</sup> The street lighting program in New York City, described above, required an expenditure of \$500,000 to buy and install the new equipment. However it was found that the new lamps use \$9 less electrical apiece each year and give more than twice as much light.<sup>29</sup>

In the case of highway lighting, illuminating engineers say the lighting cost is generally less than one percent of the total cost of the highway. Installation of adequate lighting is considerably cheaper if it is done at the time the highway is constructed.<sup>30</sup>

<sup>22</sup> J. Parker Heck. Traffic Accidents Claim 43,600 Lives in 1963. *Op. cit.*

<sup>23</sup> Lighting can cut crime. *Op. cit.*

<sup>24</sup> Edison Electric Institute. Street Lighting Manual, 1963, p. xiii.

<sup>25</sup> *Ibid.*, p. 81.

<sup>26</sup> Letter from Edison Electric Institute to Economics Division, Legislative Reference Service, Library of Congress, dated March 19, 1965.

<sup>27</sup> Ambitious Lighting Program. Las Vegas Sun, January 3, 1965.

<sup>28</sup> Mercuries Boost Light Levels Five-fold. The American City, January 1965, p. 117.

<sup>29</sup> Don Murray, *op. cit.*

<sup>30</sup> Guide to Nighttime Highway Safety. Street and Highway Safety Lighting Bureau.

The police chief of Gary, Indiana, justifies such expenditures this way, "A good street light is as valuable as a good policeman, and a lot cheaper."<sup>31</sup>

"Only in recent years have case histories provided proof positive that proper street lighting can cut nighttime fatalities by 50 percent. For the entire nation, this means a saving of 20,000 lives annually, plus an economic savings estimated to be \$2 billion per year."<sup>32</sup>

Mr. MOSS. Mr. Rogers?

Mr. ROGERS of Florida. Mr. Chairman, I would like to yield to my colleague, if I may, as he has not had the opportunity to ask any questions yet.

Mr. MOSS. Mr. Kornegay.

Mr. KORNEGAY. Thank you, Mr. Chairman.

Mr. CONNOR, it is nice to see you here, and the members of your staff. I want to compliment you on your statement in connection with highway safety and say, though, that I was little bit disappointed that it didn't go further than it does and at least discuss some of the things that, to my way of thinking, are even more important in highway safety than the things that are discussed in your statement with reference to standards of equipment and that sort of thing.

I am thinking about the driver, No. 1, the man behind the wheel. I am thinking about the police officers, the highway patrolmen, about the courts that are charged with responsibility of enforcing a multitude of laws that we have in every State of the Union relative to highway safety and driving.

I am thinking also of the public support that is necessary and will be necessary in any real campaign to make a marked improvement in the rather tragic set of circumstances that we have existing today with reference to highway safety.

In that connection, one of the things that I think is of utmost importance is the improvement of the roads. I see from the bill that the plan is to finance this program by taking \$700 million out of the highway trust fund over the next 6 years.

Secretary CONNOR. Yes, sir.

Mr. KORNEGAY. Mr. Pickle got into this a few minutes ago. I understood you to say then that that would not in any way slow down the interstate program.

Secretary CONNOR. That is correct, sir.

Mr. KORNEGAY. Why isn't it going to slow you down if you are going to take nearly \$1 billion out of the fund?

Secretary CONNOR. Because the \$700 million that will be required for this program will be made up by \$700 million coming into the highway trust fund as a result of this 1-percent auto excise tax revenue producing measure which is being introduced for this purpose.

Mr. KORNEGAY. Is that coming into the highway trust fund now?

Secretary CONNOR. The legislation is being proposed.

Mr. KORNEGAY. In other words, we will have a new tax bill to finance this program?

Secretary CONNOR. It will be an earmarking of 1 percent of the remaining auto excise tax that now is in effect. It will not be a new tax, but it will be an earmarking of that revenue from the existing tax for this purpose.

<sup>31</sup> Lighting Can Cut Crime. *Op. cit.*

<sup>32</sup> Edison Electric Institute, *op. cit.*, p. xiii.



Mr. KORNEGAY. Then that money now is coming into the trust fund?

Secretary CONNOR. No, sir; it is not.

Mr. KORNEGAY. Where is it going? Is it going into the general fund of the treasury?

Secretary CONNOR. Yes, sir.

Mr. KORNEGAY. So we are going to divert it from the general fund and put it in the highway trust fund and use it to finance this program?

Secretary CONNOR. To finance this program and the highway beautification program that was authorized last year; yes, sir. And if there is any lack of revenue from that 1-percent auto excise tax for these two purposes, then general funds of the Treasury would be proposed for appropriation for this purpose.

Mr. KORNEGAY. Why is it better to divert the money from the general fund and put it into the highway trust fund? If you are pulling it out of one pocket and putting it into the other, why not take it out of the general fund of the Treasury?

Secretary CONNOR. For administrative purposes, it seems clear that it is better to have all highway-related activities financed out of the highway trust fund because you can have better integrated programs in doing this. As you indicate, in the long run it doesn't make any difference. The taxes of various kinds are paying for it, but for administrative purposes this seems to be a sound way of doing it.

Mr. KORNEGAY. That is all. Thank you very much.

Mr. MOSS. Mr. Rogers?

Mr. ROGERS of Florida. Mr. Secretary, do you still have this Interdepartmental Committee on Safety? Is this a functioning committee?

Secretary CONNOR. Under the proposed Executive order that the President mentions in his transportation message, the Interdepartmental Committee would be continued and the Secretary of Commerce would be the Chairman; yes, sir.

Mr. ROGERS of Florida. Has that met since you have been Secretary?

Secretary CONNOR. It met last year; yes, sir.

Mr. ROGERS of Florida. How many times?

Secretary CONNOR. Just once last year.

Mr. ROGERS of Florida. Before that, for a couple of years, or 3 years, I think, it didn't meet at all. In 1962 we went into this question.

Secretary CONNOR. It was relatively inactive for a period of time.

Mr. ROGERS of Florida. I wonder if setting up these boards will ever really solve our problems.

I am interested somewhat in finding how this money will be spent. What is the total funding requested?

Secretary CONNOR. \$700 million, sir, over a period of 6 years.

Mr. ROGERS of Florida. And in this coming fiscal year, for 1967, you request a certain amount of money. What is the total amount requested?

Secretary CONNOR. \$56 million for the fiscal year 1967.

Mr. ROGERS of Florida. What do you actually plan to do with \$56 million beginning in July?

Secretary CONNOR. \$3 million under title I would be used in research and studies, looking toward the preparation of minimum motor vehicle standards, and related activities.

Mr. ROGERS of Florida. Would that be used in-house or not?

Secretary CONNOR. The authority would be for both purposes. We would anticipate that some would be used for the salaries of people within the Government, and for the rental of facilities and so forth. Part of it would be spent in terms of contracts with organizations.

Mr. ROGERS of Florida. What would be an approximate breakdown between in-house and extramural?

Dr. HOLLOMON. The present plan, Mr. Rogers, is approximately 30 percent or so would be contracted, or somewhat less; some part used for facilities, and the residue for salaries and expenses of in-house staff.

Mr. ROGERS of Florida. How many would be hired for this work?

Dr. HOLLOMON. We have not worked out the details of that, Mr. Rogers. We can furnish them. I don't happen to have them with me. We can furnish that for the record.

But just to make an estimate for you at this time, subject to review, it would be something of the order of 40 or 50 professional people.

Mr. ROGERS of Florida. Forty or 50 professional people?

Dr. HOLLOMON. Yes, sir.

Mr. ROGERS of Florida. So as I understand it, 30 percent of your \$3 million would go for salaries, is that it?

Dr. HOLLOMON. Yes, sir; approximately.

Mr. ROGERS of Florida. Is much research coming about from this? Is research coming from this expenditure of funds?

Dr. HOLLOMON. It would be the necessary work to do the analysis and technical work, to be in a position to set the minimum performance standards or to have them voluntarily set, to participate with the industry at the end of a 2-year period.

Mr. ROGERS of Florida. What would you spend in the next fiscal year for this purpose?

Dr. HOLLOMON. Our estimate at this time is \$6 million for the second fiscal year.

Mr. ROGERS of Florida. Would you anticipate hiring more people?

Dr. HOLLOMON. Yes, sir.

Mr. ROGERS of Florida. How many more in the second year? Would it be double?

Dr. HOLLOMON. As an approximation.

Mr. ROGERS of Florida. It would still be a 30 percent extramural program?

Dr. HOLLOMON. We haven't estimated that in detail, but my guess would be that that is a reasonable estimate.

Mr. ROGERS of Florida. There have been no detailed estimates within the Department on this?

Dr. HOLLOMON. Yes. We have made estimates of the total amount of work to be done, but we have not yet determined precisely how much would be done in-house or extramural. It depends on the rate at which facilities and people are available as to the balance between these programs.

Mr. ROGERS of Florida. What facilities are you going to have in-house?



Dr. HOLLOMON. Some of the things that are necessary are facilities, for example, for the dynamic testing of materials and seat belts, for determining the steering characteristics and the testing of materials with respect to them.

Mr. ROGERS of Florida. Do you mean we have to go through testing seat belts? I thought we were beyond that now. I thought this was established as standard equipment.

Dr. HOLLOMON. The present national minimum standards for seat belts do not contain provisions for dynamic testing. These are tests to determine how the seat belts behave——

Mr. ROGERS of Florida. Hasn't GSA set these standards for Government purchases?

Dr. HOLLOMON. No, sir; they are set by the National Bureau of Standards at this time.

Mr. ROGERS of Florida. Do you mean in the purchase of our cars the GSA has not set a standard on that? That is, on the cars that we will buy?

Dr. HOLLOMON. No; I believe that the standards for the seat belts themselves, the reference in the GSA standard is to the national standard set by the National Bureau of Standards under the act of Congress.

Mr. ROGERS of Florida. So there is this standard that they feel is sufficient, that FSA feels is sufficient?

Dr. HOLLOMON. A standard is a dynamic thing, Mr. Congressman, and one of the things that we do not have is adequate tests. We think that characteristics of a seat belt need to be included in a standard. Nobody has an adequate test for the dynamic characteristics of seat belts. This is a test of the seat belt when it is suddenly loaded. That is one of the things we will have to work on as an example.

Mr. MOSS. I wonder if you would agree to anyone who has a question of Mr. Boyd to ask that question at this point, since Mr. Boyd wishes to be excused.

Mr. MACKAY. I would like to ask why the FAA Administrator should not continue to be appointed by the President in the Department of Transportation. I get a great deal of confidence from the fact that this man is appointed by the top man in the country.

Mr. BOYD. I have to disagree with you on your premise. There is no downgrading involved whatsoever. The Department of Transportation bill is an effort to provide a coordinated activity within the executive branch of the Government, and it proposes to give proper recognition to those responsible for the executive role in all branches and modes of transportation. There is no downgrading involved.

Mr. MACKAY. Certainly there is more prestige attached to a Presidential appointment. It is your idea that a Cabinet officer would be hamstrung if you had a Presidential appointee under him?

Mr. BOYD. That is, I think, the basic concern, Congressman, not because of the Presidential appointment of an individual, but because the normal corollary to that would be that the legal entity of the entire agency remains as it is so that there is no flexibility involved within the Department and no opportunity to meet shifting circumstances, which I think you will agree come about.

Mr. MACKAY. I am asking really as a layman.

Mr. BOYD. But that is the purpose.

Mr. MACKAY. The reaction to the proposal for a Department of Transportation is that it would downgrade the FAA Administrator. That may not be justified, but I was anxious to hear your views about it. I thank you.

Mr. ROGERS of Florida (presiding). Are there any more questions of Mr. Boyd?

Mr. PICKLE. I have no questions of Mr. Boyd, whom I am delighted to see again. I compliment him on his very fine service.

I do have some questions of the doctor.

Mr. ROGERS of Florida. There are just a few questions I want to ask of Dr. Hollomon, too.

Mr. Boyd, I believe there are no further questions of you. You may be excused, if you wish.

Mr. BOYD. Thank you, sir.

Mr. ROGERS of Florida. Mr. Pickle.

Mr. PICKLE. I want to establish something for legislative intent, Doctor, on standards. The question is how far we will go and what kind of standards will be adopted. Is it your intent that standards would have anything to do with speed?

Dr. HOLLOMON. The standards to which we are referring in title I are standards that have to do with the vehicle, the performance of the vehicle strictly.

Mr. PICKLE. Then it is not your intent to involve yourself in what the speed limits should be in various States?

Dr. HOLLOMON. That is correct.

Mr. PICKLE. Is it similarly true that when you talk about standards you do not intend that it would cover such standards as with respect to licensing?

Secretary CONNOR. The intent in title III, Congressman Pickle, is to make grants to the States so that they can make necessary studies in cases where they already have licensing requirements, and in other States where there are none to consider licensing requirements.

It might be that as a result of the work that goes along, there might be minimum Federal licensing standards proposed. A lot would depend on the activities of the States and just how well this whole program worked out.

Mr. PICKLE. Did you say that as we go along there would be anticipated to be some minimal standards advanced with respect to licensing?

Secretary CONNOR. There is that possibility; yes, sir.

Mr. PICKLE. Are you saying that this new Commission might make recommendations on licensing as to age, as to physical fitness, as to records of accidents, as to periods of disqualifications, and things of that sort?

Secretary CONNOR. This is possible for the continued participation of a particular State in this Federal grant program under title III; yes, sir. This is possible. This would be within the authority.

Mr. PICKLE. I hadn't anticipated that and I am surprised. It seems to me like you are getting the Department of Transportation mighty far afield from making a study and instead you are trying to tell the States what age they can be before they can be licensed, how many accidents they can have before they are disqualified, and that sort of thing. I am amazed you would want to take it that far on this kind of a study.



Secretary CONNOR. Title III, Congressman Pickle, goes beyond the studies that are proposed in titles I and II by the Federal Government. In title III there is this grant program to the States which would enable the States to go further and more deeply into some of the questions that have to do with driver licensing and automobile inspection.

As a result of working with the States over a period of time, there would be authority, under section 402, for the Federal Government to establish minimum standards that would apply for the continued participation in this grant program by each State. It would be up to the State to determine whether, in order to continue to participate, it wanted to come up to those minimum standards. It would be a State decision. Nevertheless, there is the authority to establish the standards for those participating States.

(The information referred to follows:)

STANDARDS UNDER THE "BALDWIN AMENDMENT" AND TITLE III, H.R. 13228

H.R. 13228 calls for two separate and distinct types of standards. Title I deals with one type—the motor vehicle safety standards for motor vehicles and equipment in interstate commerce. Title III deals with the other type—uniform standards for State highway safety programs.

The language in proposed section 402, title 23, USC, as covered under section 301, title III, H.R. 13228, is quite similar with respect to standards as exist in section 135 of title 23, USC, popularly known as the Baldwin Amendment. Section 135 of title 23, USC, is now on the books, so to speak. It provides:

"After December 31, 1967, each State should have a highway safety program, approved by the Secretary, designed to reduce traffic accidents and deaths, injuries, and property damage resulting therefrom, on highways on the Federal-air system. Such highway safety program should be in accordance with uniform standards approved by the Secretary and should include, but not be limited to, provisions for an effective accident records system, and measures calculated to improve driver performance, vehicle safety, highway design and maintenance, traffic control, and surveillance of traffic for detection and correction of high or potentially high accident locations."

It can be seen from the above that uniform standards for the State highway safety program aspects are required to be established by the Secretary. The various aspects or program areas determined to date for which uniform standards are to be issued by the Secretary are described in the attachment "Definitions of the Elements Applicable to Section 135."

The present law calls for the States to have approved programs by December 31, 1967. They should be in accord with the uniform standards approved by the Secretary.

The Secretary is required by existing law to proceed with the development of these uniform standards at the earliest possible date to provide the necessary guidance for the States in the establishment of their programs. These standards are now being developed with maximum coordination and cooperation with the States. The present schedule provides for their issuance in the early autumn of this year.

U.S. DEPARTMENT OF COMMERCE,  
BUREAU OF PUBLIC ROADS,  
Washington, D.C.

DEFINITIONS OF THE ELEMENTS APPLICABLE TO SECTION 135 OF TITLE 23,  
UNITED STATES CODE—PUBLIC LAW 89-139

1. *Highway Safety Programs.*—A comprehensive State program with authority, organization, and resources that effectively meet the highway safety requirements established pursuant to section 135, title 23, United States Code—Public Law 89-139.

2. *Accident Records System.*—An orderly process for collecting, recording, analyzing, and using motor vehicle traffic accident reports and traffic records to detect and correct accident prone locations and to gain insight into pertinent causative factors.

3. *Driver Performance.*—The basic or beginning education and training of drivers, driver examination, suspension or revocation of driver licenses, and the improvement of licensed drivers through instruction, training, reexamination, and other actions.

4. *Vehicle Safety.*—Motor vehicle design, equipment and performance, vehicle registration, and motor vehicle inspection.

5. *Highway Design and Maintenance.*—The functional design of streets and highways, as this is involved with their safe use, and to the maintenance of safe operating conditions through the application of traffic engineering and suitable physical maintenance.

6. *Traffic Control.*—Measures and devices which govern or regulate the actions of highway users to achieve the orderly movement of people and goods, including traffic engineering techniques and control devices, legislation, courts, and police traffic supervision.

7. *Surveillance of Traffic.*—The processes of detecting and correcting high or potentially high accident locations by utilizing the functions of traffic engineering, police traffic supervision, traffic records systems, construction and maintenance, laws, and the public individually and collectively.

8. *Manpower and Training.*—The total manpower that should be mobilized to attain a level of highway safety commensurate with the public stake in the traffic accident problem; and the recruitment, preparation, and in-service training of appropriate personnel to perform this task.

9. *Emergency Services.*—The timeliness and adequacy of care and the services support system to assist persons involved in highway emergencies; including (1) detection of the incident, (2) response to the incident-site and protection of persons and property, (3) on-site services to persons and vehicles, (4) transportation and in-transit treatment of injured persons, and (5) hospital emergency care and facilities.

Office of Highway Safety, February 1966.

Mr. PICKLE. It would be a State decision, but you are holding a pretty heavy club over their head with respect to the grants if you actually can, in effect, threaten them or urge them, or coerce them, to establish a certain minimum standard in this field even with respect to receiving grants. I anticipate you will get in trouble in this field.

Secretary CONNOR. Congressman, the States at the moment don't get any such grant. Any State so desiring does not have to participate in this grant program. In fact, in order to participate, since it is on a matching-grant basis, the State has to put up some money of its own. If it does participate on a matching-grant basis, and then the studies that are undertaken indicate that some change in the existing State laws with respect to driver licensing or motor vehicle inspection is desirable, and out of this emerges some Federal minimum standards, then each particular State has the decision of whether it wants to come up to those standards, and thereby continue in this grant-receiving process.

There is no penalty if any particular State decides not to do so, so it is not a stick; it is a carrot.

Mr. PICKLE. Did you say a carrot?

Secretary CONNOR. A carrot.



Mr. PICKLE. That "carrot" has been somewhat ossified, Mr. Secretary, if it is going to be a carrot when you get to these grants. You are supposed to distribute these grants on the basis of 75 percent of the population; is that correct?

Secretary CONNOR. Yes, sir; 75 percent.

Mr. PICKLE. They are distributed on that basis if they just establish these standards?

Secretary CONNOR. Yes, sir; that could happen down the road.

Mr. PICKLE. Mr. Chairman, I will not pursue this any further, because I know you have questions, but I sure want to take a look at title III again with respect to these grants.

Mr. ROGERS of Florida. Mr. Secretary, I just want to go into the funds, the use of the funds. Let's get back to the \$3 million for the in-house studies and extramural research, and then \$6 million the second year.

Secretary CONNOR. Yes, sir; and it jumps to \$9 million in the third fiscal year and continues to a total of \$45 million under title I.

Mr. ROGERS of Florida. And then the other expenditures of the bill?

Secretary CONNOR. Under title II, facility planning, the first year which is the planning year it would have an authorization of \$3 million. The bill itself doesn't attempt to estimate what the construction cost would be for facilities.

Mr. ROGERS of Florida. This is for your facilities to do your testing in?

Secretary CONNOR. Yes, sir, the Federal facilities provided for in title II. As a rough estimate, we would think that over a period of the next 2 years for the construction of the necessary facilities, about \$50 million would be required.

Mr. ROGERS of Florida. But this is not in the bill?

Secretary CONNOR. No, sir.

Mr. ROGERS of Florida. Is the blanket authorization there?

Secretary CONNOR. As to whatever funds are appropriated; yes, sir.

Mr. ROGERS of Florida. Would you give us a breakdown of that?

Secretary CONNOR. \$20 million in the first year of the construction period and \$30 million in the second.

Mr. ROGERS of Florida. Would this start in fiscal 1967?

Secretary CONNOR. No, sir; in fiscal 1967 it would be the \$3 million figure for planning purposes only. The \$20 million would come in fiscal 1968 and the \$30 million in 1969.

Mr. ROGERS of Florida. Where would these facilities be built?

Secretary CONNOR. That would have to depend upon the plans that evolve from the expenditure of the \$3 million in the first year. As is indicated in the statement and as is reinforced by provisions in the bill, there would be no attempt to duplicate any existing facilities, but the Federal Government itself does not have the kind of facilities that are needed for the administration of this program except in certain specialized instances at the moment.

So this would be a new facility, either centered in one place or perhaps several laboratories in different geographical locations.

Mr. ROGERS of Florida. Could you cover the other expenditures?

Secretary CONNOR. In title III, the estimated and requested authorization in fiscal 1967 would be \$40 million; in 1968 and 1969 fiscal years it would be \$60 million.

Mr. ROGERS of Florida. 1967 would be how much?

Secretary CONNOR. 1967 would be \$40 million.

Mr. ROGERS of Florida. And this is for what?

Secretary CONNOR. Grants to the States under the authority in title III. Then in 1968 it would be \$60 million; in 1969 it would be \$60 million; in 1970 it would be \$80 million; in 1971 it would be \$80 million; and in 1972, the sixth year, it would be at the rate of \$100 million.

Then, in addition, the research program that is contemplated in title III is estimated to involve \$10 million in fiscal year 1967; \$20 million in fiscal year 1968; \$25 million in 1969; \$30 million in 1970; \$35 million in 1971; and \$40 million in 1972.

Mr. ROGERS of Florida. And your formula for breaking down the grants to the States is 75-25?

Secretary CONNOR. Yes, sir; 75 percent based on population, 25 based upon special factors within the discretion of the Secretary.

Mr. ROGERS of Florida. What would be the main factors involved?

Secretary CONNOR. The two that occur to us as being most important at the present time would be to give a State that is innovating a special advantage in terms of financing, and on the other hand, to give a State that is quite backward, but which wants to get into this kind of a program, a special advantage.

Mr. ROGERS of Florida. What is the total to be given to any one State?

Secretary CONNOR. We have a breakdown of how the 75 percent would work out, Mr. Chairman, and we would be glad to submit this for the record, if you would like.

Mr. ROGERS of Florida. I think that would be helpful to have. I just wondered how many States you envision coming into your program, let's say, in 1967. You can submit the details for the record, if you would just give us a rough estimate.

Secretary CONNOR. In our computation, we think there will be participation by all the States.

Mr. ROGERS of Florida. Immediately? You think every State will participate immediately?

Secretary CONNOR. Yes. Each State involved, we think, is able to participate to the degree provided for in the first year of the program.

Mr. ROGERS of Florida. Do they have to have a matching amount?

Secretary CONNOR. Yes, sir; they do.

Mr. ROGERS of Florida. What is that?

Secretary CONNOR. Fifty percent.

(The table referred to follows:)



*Estimated apportionments of Federal funds to States for highway safety programs authorized by section 402 of proposed Traffic Safety Act of 1966 (H.R. 13228 and S. 3005) <sup>1</sup>*

[In millions of dollars]

State	1967	1968	1969	1970	1971	1972	Total
Alabama.....	0.51	0.77	0.77	1.03	1.03	1.28	5.39
Alaska.....	.03	.05	.05	.07	.07	.09	.36
Arizona.....	.20	.31	.31	.41	.41	.51	2.15
Arkansas.....	.28	.42	.42	.56	.56	.70	2.94
California.....	2.46	3.70	3.70	4.93	4.93	6.16	25.88
Colorado.....	.28	.41	.41	.55	.55	.69	2.89
Connecticut.....	.40	.60	.60	.80	.80	1.00	4.20
Delaware.....	.07	.11	.11	.14	.14	.18	.75
Florida.....	.78	1.17	1.17	1.56	1.56	1.94	8.18
Georgia.....	.62	.93	.93	1.24	1.24	1.55	6.51
Hawaii.....	.10	.15	.15	.20	.20	.25	1.05
Idaho.....	.11	.16	.16	.21	.21	.26	1.11
Illinois.....	1.58	2.37	2.37	3.16	3.16	3.95	16.59
Indiana.....	.73	1.10	1.10	1.47	1.47	1.83	7.70
Iowa.....	.43	.65	.65	.87	.87	1.08	4.55
Kansas.....	.34	.51	.51	.68	.68	.86	3.58
Kentucky.....	.48	.71	.71	.95	.95	1.19	4.99
Louisiana.....	.51	.77	.77	1.02	1.02	1.28	5.37
Maine.....	.15	.23	.23	.30	.30	.38	1.59
Maryland.....	.49	.73	.73	.97	.97	1.22	5.11
Massachusetts.....	.81	1.21	1.21	1.61	1.61	2.02	8.47
Michigan.....	1.23	1.84	1.84	2.46	2.46	3.07	12.90
Minnesota.....	.54	.80	.80	1.07	1.07	1.34	5.62
Mississippi.....	.34	.51	.51	.68	.68	.86	3.58
Missouri.....	.68	1.02	1.02	1.36	1.36	1.70	7.14
Montana.....	.11	.16	.16	.21	.21	.26	1.11
Nebraska.....	.22	.33	.33	.44	.44	.56	2.32
Nevada.....	.05	.07	.07	.09	.09	.11	.48
New Hampshire.....	.09	.14	.14	.19	.19	.24	.99
New Jersey.....	.95	1.43	1.43	1.90	1.90	2.38	9.99
New Mexico.....	.15	.22	.22	.30	.30	.37	1.56
New York.....	2.63	3.95	3.95	5.27	5.27	6.58	27.65
North Carolina.....	.72	1.07	1.07	1.43	1.43	1.79	7.51
North Dakota.....	.10	.15	.15	.20	.20	.25	1.05
Ohio.....	1.52	2.28	2.28	3.04	3.04	3.80	15.96
Oklahoma.....	.36	.55	.55	.73	.73	.91	3.83
Oregon.....	.28	.41	.41	.55	.55	.69	2.89
Pennsylvania.....	1.78	2.66	2.66	3.55	3.55	4.44	18.64
Rhode Island.....	.13	.20	.20	.27	.27	.33	1.40
South Carolina.....	.37	.56	.56	.75	.75	.93	3.92
South Dakota.....	.11	.16	.16	.21	.21	.26	1.11
Tennessee.....	.56	.84	.84	1.12	1.12	1.40	5.88
Texas.....	1.50	2.25	2.25	3.00	3.00	3.75	15.75
Utah.....	.14	.21	.21	.28	.28	.35	1.47
Vermont.....	.06	.10	.10	.13	.13	.16	.68
Virginia.....	.62	.93	.93	1.24	1.24	1.55	6.51
Washington.....	.45	.67	.67	.90	.90	1.12	4.71
West Virginia.....	.29	.44	.44	.58	.58	.73	3.06
Wisconsin.....	.62	.93	.93	1.24	1.24	1.55	6.51
Wyoming.....	.05	.08	.08	.10	.10	.13	.54
District of Columbia.....	.12	.18	.18	.24	.24	.30	1.26
Puerto Rico.....	.37	.55	.55	.74	.74	.92	3.87
Total.....	28.50	42.75	42.75	57.00	57.00	71.25	299.25

<sup>1</sup> Apportionment, based on population, of 75 percent of total sums authorized after reserving 5 percent for administration.

Mr. ROGERS of Florida. Why shouldn't we start out with a sufficient sum in the beginning if all the States are going to participate? In other words, you go from \$40 million up to \$60 million.

Secretary CONNOR. It is a question of degree, Mr. Chairman. Some of the States have done a lot of this kind of activity; in other situations they haven't done much. But even in those cases there seems to be enough interest in this kind of a program in view of the seriousness

of traffic accidents and the resultant human loss to participate in the program.

Mr. ROGERS of Florida. What do you think the States will do with this amount of money?

Secretary CONNOR. They, for the most part, will have studies of their current programs to indicate their effectiveness and, in particular, to indicate what changes, if any, are needed with respect to the States' administration of highway programs.

(The following information was submitted by the Department of Commerce:)

#### USE OF TITLE III GRANTS BY THE STATES

The grants provided are not to meet a total or specific State program need but are to *assist* the States in carrying out expanded highway safety programs.

The grants will provide the States with money for initiating new safety programs and upgrade areas of greatest deficiency. Federal standards to be established will guide the States in utilizing available grant monies. These will assure that Federal grants are directed into highest benefit areas and administered under effective standards. The Federal standards developed also will provide maximum flexibility and permit the States a wide range of freedom in developing specific program requirements.

Initial grants provided under the Traffic Safety Act of 1966 will be needed during 1967 to develop State safety programs under the standards and guidelines now being developed by the Department of Commerce in cooperation with appropriate State officials.

State programs will be aided in the following areas under established priorities: traffic engineering, police traffic supervision, traffic safety aspects of laws' enforcement and their administration, driver licensure, driver education, emergency medical service, and motor vehicle inspection programs. In addition, emphasis will be placed upon the development of adequate accident records systems and specialized accident investigation projects and studies.

The Department of Commerce has underway at this time a study which will be a useful guide to the States in allocating grants to areas which have the highest payoff. In our judgment, the grant levels are a substantial inducement to stimulate increased and constructive efforts at the State level towards achievement of national goals.

The President's Committee for Traffic Safety in November 1965 stated in a report on 1964 safety efforts that:

"Safety expenditures amounted to \$820 million (of the total of more than \$100 billion), equivalent to \$8 per \$1,000 spent on motor transportation for the one year. The \$820 million expenditure, however, does not include expenditures for streets and highways due to the difficulty of estimating costs of the safety features incorporated in the design and building of road facilities."

"It was estimated that at least \$958 million more than the 1964 safety expenditure is needed to finance improvements, based on the latest Annual Traffic Inventory reports:

	<i>Millions</i>
States.....	\$249
Counties.....	148
Cities.....	561
Total.....	958

"The \$958 million cost of improvements is conservative, inasmuch as the estimate did not include certain elements of the Action Program such as, the building of road facilities (mentioned above), research, etc."

While above estimates are not and do not necessarily represent priority areas of greatest State need, they give a clear indication of additional requirements already required under existing program assumption.

The attached tabulation (attachment A) indicates a breakdown as to areas in which additional safety corrective expenditures are required according to the President's Committee.



## ATTACHMENT A

*Breakdown of additional requirements*

Accidents Records.....	\$19,600,000
Traffic Engineering.....	321,200,000
Police Traffic Supervision.....	425,800,000
Traffic Courts.....	35,600,000
Driver Licensing.....	10,200,000
Periodic Motor Vehicle Inspection.....	79,200,000
School Traffic Safety Education.....	44,830,000
Public Traffic Safety Education.....	11,700,000
Organization for Traffic Safety Improvement.....	9,900,000

Mr. ROGERS of Florida. Will it be directed entirely toward safety?

Secretary CONNOR. We have a paper, and perhaps in view of the interest we could submit it for the record, which indicates that among the programs that would be of interest in particular States are, first of all, a highway safety information center; highway safety research facilities; accident investigation teams; traffic surveillance; driver education; driver licensing; traffic control technology; education programs, emergency medical services, and spot improvement on existing highways.

Mr. ROGERS of Florida. Is that some type of research that we are going to be doing?

Secretary CONNOR. The type of research that would be done by the States in cooperation with the Federal Government under this grant program authorized in title III by and large would not be duplicated in the Federal program.

(The following information was submitted by the Department of Commerce:)

## TRAFFIC SAFETY RESEARCH PROGRAM

All safety research in the Federal Government will be coordinated through the Secretary of Commerce. We will develop cost effectiveness measures for the major safety program areas which will enable us to allocate our research investment to the highest priority areas. However, the problem is so critical that we must begin today to research for new answers. The needs are clearly indicated in basic documentation such as the "Federal Role in Highway Safety" made at the direction of the Congress in 1959. Our basic task is to develop an improved methodology for establishing appropriate priorities.

The Traffic Safety Act of 1966 provides for research funds in more than one title. In addition there are existing research programs now being conducted under existing legislation. Thus, the Traffic Safety Research Program must be viewed not as separate uncoordinated pieces but rather as a whole. This is the purpose of central policy guidance at the Executive level as proposed by the President. For example, research on the vehicle safety performance standards can not be viewed independently from research on the control and guidance characteristics of the driver—information that would be useful for developing driver education standards and driver licensing tests. Traffic safety research must be viewed from a total systems point of view.

The research program will attack the three basic areas of the accident phenomena; accident prevention, the minimization of their effects if they occur; and effective emergency services and investigation after the accident. The detailed research program is still in the planning stage and subject to change.

## OVERVIEW

A comprehensive data collection and analysis system and a research correlation system are essential. These will be the means for interlocking all safety research so that no facet is overlooked; no effort wasted; no potentially useful result ignored or unused. The utilization of cost effectiveness methodology for traffic safety programming is a basic element of the Administration's Traffic Safety Program.

## ACCIDENT PREVENTION

In the areas of accident prevention we must examine all the factors influencing the reliability of the system. These include the drivers capabilities—physical, mental, and psychological—and attitudes, driver education and licensing processes; the hazards of alcohol and drugs; and the functions of the pedestrian. Study of present legal enforcement procedures are required to determine if present law enforcement techniques provide optimum safety benefits.

Additional areas of human factors research include communications between vehicles, and between highway and drivers (including signs, signals, and markings); traffic regulations and policing; and the nature and administration of traffic laws.

Research on the vehicle system will cover its stability and performance in normal and extreme situations; placement (for reasonable uniformity), facility in use and fail-safe features of operating controls, informational, guidance, and control-assistance devices; licensing and inspection (particularly in relation to adequacy of initial performance and subsequent maintenance); and special vehicle problems such as those concerning the school bus.

Research studies of the highway itself, related to accident prevention, will cover: spot improvement (to rectify existing hazardous situations) and improved geometric design (including reduction of traffic interference at intersections and interchanges).

## MINIMIZATION OF EFFECTS

Much needs to be learned about human body tolerances of various age groups, and the most effective yet acceptable forms of restraints and "packaging" for safety. For the vehicle, a wide range of safety features to provide vehicle stability and occupant safety in a crash situation should be explored, including absorption of initial crash impact, minimizing the "second impact" of the occupants within the vehicle, and elimination of fire hazards.

Research into characteristics of the highway directly related to the severity of accidents is critical. This will include such things as the better design and placement of roadside features; such as culvert walls, guard rail, and sign supports; and smoother, non-skid pavements.

## EMERGENCY SERVICES AND INVESTIGATION

After the accident occurs, the first concern is for the provision of emergency medical service and transportation of the injured. Improvements in methods, equipment and trained personnel are needed, so that the injured may be quickly and competently cared for, and properly conveyed to a medical facility. The adequacy of this service is directly coupled to the prompt communication to authorities about the occurrence, location, and severity of the accident. Considering that accident locations range from metropolitan thoroughfares to remote country roads, the problem is complex and will call for the research of new and alternative solutions.

Accident investigation is also important to determine both immediate and underlying causes in furtherance of the accident prevention program.

Thus, methodology and personnel for trained and skilled accident study teams, for prompt, selective and extended investigation of accidents, need to be developed. Finally, adequate methods of traffic handling at the accident scene, and means for prompt removal of damaged vehicles and debris from the roadway are also needed.

## RESEARCH FELLOWSHIPS

Presently there is a lack of professionals in both research and operating fields in highway safety. The support of fellowships will be an important programming element of the research and development program contemplated under the Traffic Safety Act. These fellowships are not funded separately since they will be considered an integral part in the overall development of a national competence in each of the major program areas outlined above.

## INTERFACE WITH OTHER RESEARCH

It is important that traffic safety be viewed as a system and it is our intent that each element of the President's Traffic Safety Research Program will fit



together into a comprehensive attack upon the traffic accident problem which results in the needless slaughter of so many Americans.

Secretary CONNOR. The Federal emphasis in title I, as you know, is on the motor vehicle, itself, and any necessary standards for the motor vehicle.

In title II there is this program that would authorize the establishment may have, this problem is of such tremendous scope that in a sive title covering necessary programs in which the States play a part and then separate but related programs of research by the Federal Government in this whole comprehensive highway safety program.

Mr. ROGERS of Florida. You say you are going to have the States have the research facilities, and yet we are building a facility. In the law, as I understand it, once you set the standards that preempts the States.

Secretary CONNOR. In spite of any facility the Federal Government may have, this problem is of such tremendous scope that in a particular State, such as a heavily populated State like Florida, it might very well be in the public interest there for the State of Florida to have some kind of a testing facility in order to help the State officials carry on research for the kind of accident problems that are peculiar to Florida.

Mr. ROGERS of Florida. Of course, I presume that we are giving research grants to university centers, are we not, the Federal Government is giving them?

Secretary CONNOR. Well, to a certain extent. But on the broad national safety problems. This doesn't preclude Florida from doing research in this field of accident prevention, traffic control, driver licensing, driver education.

Mr. ROGERS of Florida. I was thinking about a research facility being built by the States. Why would that be necessary?

Secretary CONNOR. It may not be necessary, Mr. Chairman. In a particular situation there may be no need for a separate State facility and there would be no attempt on our part to force a State to have such a facility.

In fact, in order to have one there would have to be the matching grant of 50 percent from the State. So this is within the States control.

Mr. ROGERS of Florida. You stated that you were thinking about going into the question of whether there should be licensing by the Federal Government, did you?

Secretary CONNOR. No, sir. Under title III as part of these studies that the State could carry on, the State might very well conclude to recommend to its legislature changes in licensing.

As time goes on there is the possibility that the deficiencies are so great among many States with respect to driver's licensing, that there might be a minimum Federal standard with respect to driver's licensing, which would have to be complied with by a State if it wanted to continue to participate in this grant program.

Mr. ROGERS of Florida. In title III, on research, what would those funds go for? As I understood it, you gave me the breakdown of the grants.

Secretary CONNOR. The research program would total \$160 million over the 6-year period, and the type of research that could be conducted

has been described in my statement. We don't have a specific breakdown as to just exactly what would be done because the nature of research is such that although you can have certain objectives you can't forecast in advance just how it will be divided from year to year because it depends upon what accomplishments you make in preceding years.

Mr. ROGERS of Florida. As I understood it, you gave me the breakdown of 1967 to 1972 of the grants to States under title III.

Secretary CONNOR. Yes, sir.

Mr. ROGERS of Florida. Another part of title III to be broken down is research funds to be given to the States.

Secretary CONNOR. Yes, sir.

Mr. ROGERS of Florida. But I thought you said the grants to States were actually research studies anyhow, studies to be made by the States. It seems a duplication. Maybe you can clear that up in my mind.

Secretary CONNOR. Part of title III, under the title of grants to States, could be to help give financial support to these States in research programs of their selection. This is among the types of activities that I enumerated with the 10 headings. But, in addition, in this Federal research facility, and through contracts and grants to educational institutions throughout the country, there would be the opportunity, if these funds are authorized, for the Federal Government to sponsor research programs in this whole field of the type that we have indicated in the statement as being of national importance and concern.

There would be the possibility that a particular Federal Government research program sponsored, let's say, with a university in one Southern State would be in the same subject field as what is being done by a particular State elsewhere. But, nevertheless, this Federal research program would be administered separately from the State activities, and it would be in somewhat different fields, particularly having to do with the whole environment, the type of research needed for highway improvement and so forth, and this we would expect to not be duplicated at the State level.

Mr. ROGERS of Florida. Thank you very much, Mr. Connor.

Mr. Mackay?

Mr. MACKAY. Thank you, Mr. Chairman.

Mr. Secretary, in our 4-month study of this problem we have been shocked at the lack of data on the subject of traffic accidents. We call the Bureau of Public Roads and they say a private agency in Chicago has the data, the National Safety Council.

We have not found any authoritative source within our own Government. I would like to ask you where your Department got the data on which you based your recommendations for the provisions of this bill?

Secretary CONNOR. Congressman Mackay, we got it from all available sources, private, public, Federal, State, and local.

Mr. MACKAY. Can you furnish the sources to this committee?

Secretary CONNOR. Yes, sir; we can.

(The information requested follows:)



SOURCES OF DATA DRAWN UPON IN DEVELOPING THE PRESIDENT'S  
SAFETY PROGRAM AND THE "TRAFFIC SAFETY ACT OF 1966"

The identification and evaluation of safety references, accident statistics and other information was a major segment of the work of the interagency group in preparation of the President's Safety Program. That the sources were short of the need is evident from a major recommendation made by that group for establishment of a highway traffic safety information center. The nature of the principal materials examined by the group is indicated separately below.

NATIONAL SAFETY COUNCIL PUBLICATIONS

The only summary facts regularly available that approach a comprehensive definition of the Nation's traffic accident situation are those compiled by the National Safety Council from reports voluntarily made to it by State and local agencies. The Council is a private organization operating under a Federal charter and relies upon income from private sources, publications and services to underwrite its program, which includes industrial, farm and home safety as well as traffic safety.

Using reports submitted to it, the Council summarizes highway traffic accidents, injuries, deaths and economic loss. A substantial number of standard tabulations of accident circumstances are presented in their annual publication "Accident Facts" and at intervals reports are also made on a limited number of analyses of specific problem areas such as the drinking drivers, winter driving precautions, railroad grade crossing accidents, small car hazards, and other items of benefit to safety programming.

THE FEDERAL ROLE IN HIGHWAY SAFETY

In 1959, at the direction of the Congress, the Secretary of Commerce submitted a comprehensive report prepared in the Bureau of Public Roads on "The Federal Role in Highway Safety." This report, published as House Document 93, was consulted also during the interagency effort.

This reference provided significant guidelines on the magnitude and dimensions of the traffic safety problem and on unfilled needs warranting attention by the Federal Government. The framework for an adequate Federal program outlined in that report is largely met by the President's new Safety Program. The analysis of deficiencies in on-going highway safety activities, both official and non-official, among the scores of organizations dedicated to safety, and the shortcomings of Federal and State efforts in particular as reported in 1959, were given specific attention.

REPORTS OF THE INTERDEPARTMENTAL HIGHWAY SAFETY BOARD  
AND ITS WORKING COMMITTEE

Reports of the Interdepartmental Highway Safety Board, a Cabinet-level body constituted by Executive Order in December 1960, and of its Working Committee, also provided useful information. These reports, prepared by staff of the departments and agencies having a major responsibility or interest in highway traffic safety, recorded in some detail the nature and extent of Federal programs in highway safety, defined and supported tentative Federal policies agreed upon by major departments and agencies concerned, and indicated the substance of the national programs and responsibilities necessary to achieve a more effective Federal contribution to traffic accident and injury reduction.

REPORTS AND REFERENCES OF THE BUREAU OF PUBLIC ROADS

The Office of Highway Safety, established as a major organizational unit of the Bureau of Public Roads in December 1961, performs the central staff function for the Interdepartmental Highway Safety Board, in addition to directing operational programs of Public Roads in this field. Liberal use was made of the specialized knowledge and resources of this unit in formulating the President's Safety Program.

Expertise in highway and traffic engineering, law enforcement, driver licensing and control, accident records, driver training and public safety education and in the standardization processes appropriate to these areas was combined

with the safety capability of the Office of Research and Development in a Public Roads report on "An Accelerated Program in Highway Safety." Elements of this report, written during 1965, were carried forward without significant change to the President's Program. Background information for this extensive plan was drawn from multiple sources available as a result of long-range studies of operating and research needs conducted independently and cooperatively with others both inside and outside government. In this connection, the association of the staff with the major national and international committees working in highway safety research and operations was an invaluable asset.

#### OTHER SOURCES

Other basic data available to the interagency group included the reports of the National Office of Vital Statistics and the National Health Survey, research into medical, health, and other environmental aspects of traffic accidents conducted or sponsored by the Accident Prevention Division of the Public Health Service. Account was taken also of work performed by the National Bureau of Standards and industry on Federal specifications for hydraulic brake fluid and seat belts and by the General Services Administration and its advisory committees on equipment and design features for vehicles purchased for official use by the Federal Government.

Reports of traffic safety hearings conducted before concerned Committees of the Congress, dating from 1956, were also available to the interagency study group, as were hearings of the Federal Trade Commission on tire standards, and the technical reports of the President's Committee for Traffic Safety, whose Action Program was prepared in 1946 and revised or supplemented in several subsequent years.

The progress in State safety legislation and in its application in terms of the safety need, the status of relevant Federal legislation, and numerous other miscellaneous information items were derived either from direct knowledge or study of appropriate public documents.

Mr. MACKAY. Can you tell me what sources you found, other than the National Safety Council?

Secretary CONNOR. The automobile associations, the automobile manufacturers, the Council of State Governments, various State and local authorities; some of the universities such as Cornell and California have programs in this field.

Mr. MACKAY. Do you have any data that you would not want to disclose to this committee for any reason?

Secretary CONNOR. No, sir.

Mr. MACKAY. This morning a representative of the General Services Administration testified before the Senate Commerce Committee that there is no information available other than the results of some research done in Cornell Laboratories in 1956 on the causation of accidents.

Do you know of any other source than that?

Secretary CONNOR. Dr. Hollomon is an expert in this field.

Dr. HOLLOMON. There are no real experts in the field, as you point out, Mr. Congressman. The kind of information relative to causation of accidents would be carried at three places in the country, the Cornell Laboratory, the Harvard Medical Center, and the University of California at Los Angeles, which has a fair amount of work in both at the university and at the medical center associated with the University of California at Los Angeles.

These are three of the prime sources of information. The Public Health Service also has a data bank on medical effects. These are some of the better sources of information.



Mr. MACKAY. Is the Department going to present to us witnesses or any experts in the country who do this work? Are you going to bring the people here from Cornell to testify on this bill?

Secretary CONNOR. It is up to the committee.

Mr. MACKAY. I have been told that we have no money. I want to know if the Department is going to present these witnesses.

Secretary CONNOR. We will be glad to present whatever witnesses are of interest to the committee.

Mr. MACKAY. Can you tell me how much new money is really going to traffic safety under this program?

Secretary CONNOR. Yes, sir. The level under the existing program in the 1967 fiscal year, for example, is \$15,200,000. As I enumerated, an additional \$56 million would be authorized by this legislation.

Now, in addition, this highway spot improvement program is now at a pretty sizable level and it would be anticipated that that program alone, which comes out of the highway trust fund under present authorizations, would involve, for the fiscal year 1967, the expenditure of over \$100 million.

Mr. MACKAY. For example, can you tell me how much we are putting into research at the present time per year on causation of traffic safety or the improvement of traffic safety?

Secretary CONNOR. The proposed Department of Commerce budget for the fiscal year 1967 that is now before the House Appropriations Subcommittee contains an item of about \$5 million for the highway safety program, research. It is mostly research.

Mr. MACKAY. Do you know how much of the Health, Education, and Welfare budget for accident prevention can be attributed to highway traffic safety?

Secretary CONNOR. I understand that this \$5 million which we are asking for, and which includes the right to contract out to other Government agencies, includes about \$2.5 million for the HEW end of the work.

Mr. MACKAY. So we have less than \$10 million to apply to this problem now; is that right?

Secretary CONNOR. For our total traffic safety program, under existing legislation for the fiscal year 1967 we are asking for \$15,200,000, but it is estimated in 1968, under the existing programs, this would only be \$8,200,000. So it is in that order of magnitude.

Mr. MACKAY. So actually we are not even planning to double what we are doing now, or more than double, or treble?

Secretary CONNOR. In addition to the amounts I just specified for the existing authorities, for the fiscal year 1967 we would add \$56 million; for 1968, \$106 million, and so on up, for the total additional amount of \$700 million during this 6-year period covered by this legislation.

Mr. MACKAY. Is that for research?

Secretary CONNOR. No, that is the total amount.

Mr. MACKAY. I want to know how much money we are going to spend to get to the causes of traffic accidents.

Secretary CONNOR. For research alone we would be adding in fiscal year 1967, \$3 million on the proposed vehicle safety standard program; \$10 million on the research that the Federal Government would do by itself on a 100-percent basis.

Then in title III, the grant authority to the States, there would be a certain percentage of the \$40 million that would be authorized, that would be used in research programs at the State level.

Mr. MACKAY. Are you familiar with how much we spend per year on air safety?

Secretary CONNOR. I don't have that figure, but it is a substantial amount.

Mr. MACKAY. I would like to ask you to compare these. Only 12 percent of the people ride airplanes.

Secretary CONNOR. We will be glad to do that.

Mr. MACKAY. What safety functions currently being performed in the Federal Government will be consolidated in this Department of Transportation? Will we actually transfer anything from any other department to this Department?

Secretary CONNOR. Do you mean in the Transportation Department legislation proposal?

Mr. MACKAY. Yes.

Secretary CONNOR. In that Department, the matters pertaining to the sea travel will be consolidated—

Mr. MACKAY. I meant on traffic safety. In other words, you don't take anything out of HEW at all, do you?

Secretary CONNOR. The part of traffic safety that is now lodged in the ICC would come into the new Department of Transportation, but those are commercial vehicles. With respect to passenger vehicles there would be no change in the existing authorities, but there would be a close working relationship between the safety programs of the Department of Transportation and the continuing safety programs with respect to human beings that are done in HEW.

Mr. MACKAY. But actually this bill excludes those vehicles under the Interstate Commerce Commission from this Traffic Safety Act, doesn't it?

Secretary CONNOR. That is correct.

Mr. MACKAY. Why?

Secretary CONNOR. This program with respect to the safety on commercial vehicles would be continued even though that function is transferred from ICC to the Department of Transportation. There is a short answer to your question that there is adequate existing authority to do safety work in that commercial vehicle field now, and that authority would be consolidated in the new Department of Transportation, with this new authority proposed in this legislation.

Mr. MACKAY. Have you heard the judgment expressed that the authority of the ICC to police the interstate and commercial vehicles is not exercised now?

Secretary CONNOR. My understanding is that it is exercised. Perhaps more can be done. But the buses and so forth are subject to effective jurisdiction of the ICC, as I understand it.

Mr. MACKAY. You mentioned the lag in safety standards. We know that you need brakes, a rear view mirror, that there are 8 or 10 things that you find in the State statutes. Do you see any reason for a 2-year lag in defining minimum Federal standards?

Secretary CONNOR. Yes, sir; we do see a need. From the point of view of getting the Federal Government prepared to act competently in this field some period of time is necessary.



Mr. MACKAY. You already have those under the GSA, don't you?

Secretary CONNOR. Those are not really standards. They are certain devices that are required when the Federal Government purchases automobiles which by and large are now being put on the automobiles by the automobile manufacturers for personal use. But that is a far cry from performance standards. One such device may or may not fulfill the performance standard when it is set.

There may be better ways of fulfilling that standard which would be within the control of the manufacturer.

Mr. MACKAY. Is any of the money that you have presented here for driver training? Your bill does not use the expression of driver training, does it?

Secretary CONNOR. The grants program under title III would enable any particular State to set up a program of driver training with a 50-percent matching grant from the Federal Government.

Mr. MACKAY. Have you calculated what it would cost to provide driver training for every child approaching the age of driver training?

Secretary CONNOR. We don't have this in the proposed legislation. We have not computed that, but we will be glad to develop such a figure.

(The information requested follows:)

#### DRIVER EDUCATION

##### *Estimated and projected annual number of persons reaching age 14*

1965-66	3,667,000
1966-67	3,806,000
1967-68	3,879,000
1968-69	3,977,000
1969-70	3,997,000
1970-71	4,103,000
1971-72	4,118,000

Source: Bureau of Census—"Population Estimates, Series P-25, No. 286, July 1964."

A survey in 1957-58 by the American Automobile Association of 1,000 high schools teaching driver education reported the average cost per pupil for a qualified course in driver education to be \$43.70. The best estimate of per pupil cost for an approved course in 1965 is set at \$50.00 per pupil.

Costs to educate all 14 year olds for 1965-1966 would therefore be \$183,350,000. This figure undoubtedly is high. For example, persons reaching 14 years of age would not be eligible for a driver education course due to physical and/or mental disabilities.

Based on the above-mentioned figures it would be safe to assume that the cost for an approved (30 classroom hours and 6 behind-the-wheel hours) minimum course in driver education for the years listed would be about:

	Cost of estimated number of students	Cost of total number of 14-year-olds
1965-66	\$150,000,000	\$183,350,000
1971-72	165,000,000	205,900,000

The above final cost figures are based on studies by the Bureau of Public Roads of the number and ages of licensed drivers. About 75 percent of the total population between the ages of 15 and 74 are now licensed to drive and this will increase to 80 percent by 1980.

Mr. MACKAY. The President's Committee on Traffic Safety has some incomprehensible figures on the amount of money needed for driver training and I wish the Department would look at those figures and give us the benefit of its view on that.

Secretary CONNOR. We will be glad to.

Mr. MACKAY. Mr. Secretary, President Johnson has said that this issue, next to national defense, is the biggest issue in this country.

Secretary CONNOR. Yes, sir; that was his message.

Mr. MACKAY. And I believe he means it.

I question whether this bill means it because it is a permissive bill. The word "directs" appears only one place in the bill. It says the Secretary is authorized to do many things. Is there any good reason why it shouldn't say "shall"?

Secretary CONNOR. It does say shall in many places, Mr. Mackay. Do you have a particular spot in mind?

Mr. MACKAY. On research, testing, and development, on supervision, on training. I would say that the bill, on examination, does appear to be one that gives a lot of latitude but really is not a tough bill in terms of the responsibility imposed upon the Government.

This is one of the charges being made against all of these bills, I might say, that they are weak bills in that respect. I will not belabor that point. But I will ask your counsel to review it and see if there is any good reason why it can't fix responsibility more explicitly.

Secretary CONNOR. In section 102(a), for example, which is a very important section with respect to Federal motor vehicle safety standards, it does say the Secretary shall from time to time, and so forth.

Mr. MACKAY. As I said, I have made the point and I hope it can be reviewed in that respect.

I want to get back to this question of agency. I did read the President's message on transportation and it seems to me that the Secretary of Transportation will have massive problems in figuring out how to deal with the dockside-railroad connections and that sort of thing. He has tremendous economic problems. At best, he has to delegate this responsibility to someone in the Department.

The man in the street can understand an office like the Office of the Director of the Federal Bureau of Administration, or the Office of the Federal Aviation Administrator, but there is actually no visibility now in the Federal establishment for traffic safety—nor does this bill provide such visibility.

We had a very learned and fine Cabinet member on Meet the Press who has an office vitally concerned with traffic safety and he was asked what he thought about the slaughter on the highways. He said he had just been here 100 days and he frankly hadn't had time to look at the problem. In working on this problem I called the Bureau of Public Roads and asked to speak to the head of the Office of Highway Safety and was told the office had been vacant since November.

I want to ask you to give further consideration to the personification of traffic safety in this bill. I am not insisting on a Presidential appointment, though I must say I get a great deal of comfort from hearing the man appointed by the President of the United States talk about air safety. We must be getting good results.



I just can't believe that we will have the attention this needs unless there is somebody charged, by law, for doing these things. I understand as a lawyer the legal reasons why you have to vest certain powers in the Secretary of Commerce or the Secretary of Transportation, but this is not incompatible with the idea of the fixing of this responsibility in an administrator.

I think it is possible for us to spend \$100 million a year on traffic safety and waste it on a grant-in-aid basis, because the States will always take the money. They don't think that these grants are ossified. They are glad to have them. But unless you have a focus of intelligence on the application of those grants I can see where they would be squandered, frittered away.

I don't think this bill as drawn measures up to the President's definition of the urgency of this problem.

I represent a point of view quite different from Mr. Pickle. He lives in a State almost as big as the country, or at least they think it is. I live in a smaller State, but traffic is funneled through maybe 25 States on the way to Florida. We have a tremendous stake in the achievement of national standards. I don't feel his inhibition about your defining minimum standards for drivers' licenses, for example, though I think they should remain in the State.

Mr. ROGERS of Florida. Would the gentleman yield?

Mr. MACKAY. Yes, sir.

Mr. ROGERS of Florida. I would hope the Secretary would set some standards to do away with speed traps.

Mr. MACKAY. I am for that. This has been abused in our State.

I want to elaborate on that. I will go out and get on a plane this afternoon and fly to Atlanta. I have said this in many speeches and everybody nods their head, that when my wife leaves me at the airport, she doesn't worry about my getting to my destination; I worry about her getting home safely on the expressway.

People agree with that because the Government does not watch over the safety of the Interstate traveller even on the Interstate System. I talked with a man in the regional office of the Bureau of Public Roads. They are desperately shorthanded. There is nobody that can get right on the scene when you have a situation develop such as we have in our county in which seven people died on I-20. This is one of these vaunted safe highways. It may be that there is a bobsledding effect when there is water on the road. But there is no one that is charged by law to get out there and find out why.

If we respond to what the President has talked about, it seems to me that we have to get a lot tougher in our whole approach to traffic safety.

I want to make one other observation. I am glad to have this opportunity and I want to get this on the legislative record, because I know you would give me an opportunity to come to your office to say this. This is my 17th legislative session. We are dealing with an issue that the President has designated as the second most important issue in the country. Yet really the first opportunity that I have had to really understand what is in the mind of the administration was in your excellent statement today.

I think the dialog that resulted this morning was a product of this failure to give this issue the priority it deserves in consideration

by members of this committee. I just hope that we can work very energetically and harmoniously through the rest of this session to perfect this legislation.

I say it will be a national disaster if we don't come out of this Congress with congressional recognition of the urgency of this problem and the development of legislation which will effectively attack the problem.

Secretary CONNOR. Mr. Mackay, I couldn't agree with you more. I have been in office a little over a year. This whole question of highway safety has been very high on my priority list. The spot improvement highway program is one that I have pushed, and I know the President has pushed.

With respect to what has emerged here today in my statement with respect to the proposed legislation, we have had a group of people who are knowledgeable working on this subject almost all through last year. This is a complicated subject. We have involved quite a few other Government agencies, because many of them are involved.

So although we haven't had many meetings of this interdepartmental group that was mentioned, we have, at the working level, been devoting a considerable amount of time and attention to this. We have been aided by the suggestions that have emerged from you and the other Members of Congress.

So it has been a real dialog. I don't want the record to fail to indicate that this is a subject that has had high priority at the administration level now for well over a year.

Mr. MACKAY. I certainly believe that. As I say, I was heartened by your statement. I thought it was excellent. I think from this point we have to do some high-class legislating to get results during this session. But I do want to hand you my argument, without stating it again, for an agency, so that if your Transportation Department fails we are not going to fail on traffic safety, and the citizen at the country crossroads will know that here has been a congressional definition and assignment of responsibility on this matter.

Secretary CONNOR. On that point, irrespective of what happens to the Department of Transportation proposal, I am about to get an Executive order from the President which, among other things, will direct me to establish a unit, an organizational unit, within the Department of Commerce that is exclusively concerned with this highway safety responsibility.

I will do that, of course.

Mr. MACKAY. Let me comment on Congressman Farnsley's frustration at this situation. I think he is right in his comments on lighting. We have the Northeast Expressway entering my district in Atlanta. When you get to the DeKalb County line, we have a municipality and we are not in the city of Atlanta. But there is no lighting on that expressway in my district. The accident rate and death rate doubles up when you get in the unlighted area. That is an interstate highway. It is not a country road.

What Mr. Farnsley was saying is that he is tired of hearing from engineers a lot of irrelevant answers about why there isn't a safe driving environment in that type of situation. I suggest to you that if we are just going to have a grant-in-aid program and talk about



carrots, then this deadly highway is going to remain. This is the kind of leadership I think the people, the American people—and incidentally I think they are way ahead of the Government on this score—expect on this. They expect the solicitude of their Government on every street in this Nation.

We now have this in air safety. Traffic safety is much more complicated and difficult. On the 12th of February, we had in my district 12 people killed, and 9 of them were under the age of 28. Traffic accidents are the biggest killers of young people. This hazard creates the greatest anxiety in the hearts of parents across this country.

I hope we don't end up with a lot of programs without any focus. As I see it, we have a very complex problem which requires surgical skill. When you watch a surgeon operate, he doesn't have just a knife, but he has about 25 different tools that he can pick up and wield skillfully to deal with each facet.

That is why I am rambunctious on the subject of an agency and an administrator. I know how many problems Secretary Boyd, or whoever is Secretary, will have on transportation. I don't want to bother him with this subject. I want to go to a man, just as I have gone to General McKee on air safety. For example, we have had General McKee before this committee to talk about the 727.

I want to have a man who can answer the frustration of Mr. Farnsley about the lighting situation. I am still not convinced that this man ought not to be appointed by the President of the United States, who is accountable to the whole of the people of the United States.

Already the rumors fly around that Detroit has swallowed up the traffic safety program. I don't believe that. But I think if you don't insulate this man, if you don't give him a chance to really act for the American people, it is possible he could be gotten at, not necessarily by one group or another group, but because he is not the real agent for the American people. That is why I call it an agency. He of course can't be an administrator in the sense that the FAA Administrator is, because the Federal Government controls all the air space, the ground space, the vehicles, and the people that are flying.

Here it seems to me that the new Federal role we are trying for is in the definition of standards, safety standards and criteria which will help us build a national safe standards environment. But beyond that the Administrator will be fishing with a mighty long pole. He has to persuade State legislatures, county commissioners, city councils, to help build a uniform physical and legal environment.

He will not have power at this point, and I am not sure he should have, because if the people in the local community don't agree on a safe driving environment we are not going to achieve it, because it is in the attitude of the people that safety really resides. But I have had this experience since I have voiced some concern in this area: I have had a number of inventors come to me and say, "Why can't you have a rear view mirror that has three times the visibility as those on a new car?"

I have other people coming with ideas. I have nowhere to refer these people, and I am frustrated by this. This may be a tremendous lifesaving device, and I don't want to throw an idea into a department. I want to hand it to an agency that is going to take hold of it and go with it.

You have been patient to let me state my ideas on these points.

I have had two incidents which make me know how deeply this issue cuts into the American people. I was talking to a wire service reporter and he said, "My wife was killed in 1960." I spoke to the Rotary Club and I had the rapt attention of an eye doctor in Decatur, and he said, "I lost both of my parents in 1940." He is about my age.

I hope this sense of urgency that I believe you have, and which I know I have, will not diminish, but will grow. I think if it does grow, we will get a great bill out of the Congress.

I appreciate the forbearance of the other members of the committee, but I wanted to get this into the record.

The CHAIRMAN. Mr. Adams?

Mr. ADAMS. I have no questions of the Secretary.

The CHAIRMAN. Before I yield to Mr. Cunningham, I do want to say we appreciate your courtesy, Mr. Secretary.

Secretary CONNOR. Thank you.

The CHAIRMAN. Mr. Cunningham.

Mr. CUNNINGHAM. Thank you, Mr. Chairman.

Mr. Secretary, on your statement, you read it well and fast, so I didn't get to absorb everything in the statement as I would like to, and I haven't had a chance to study it since we recessed, but on the news wire, AP quoted you as saying:

We should not attack this problem on a piecemeal basis.

Then it says:

The administration bill meets the total traffic safety needs of the Nation. It is not directed toward a panacea-type solution.

Is that your position; that this meets the total traffic safety needs of the Nation?

Secretary CONNOR. I think what I said is toward the end of the speech. It says that it does not assume that any one of these elements is more important than the others, and it is not directed toward a panacea-type solution to the highway safety problem.

The approach of this legislation, besides being directed toward all elements of the traffic safety problem, would include the participation of all levels of other governments, Federal, State, and local, as well as industry and private organizations. We believe that this approach is essential to an effective attack upon this major national problem.

Mr. CUNNINGHAM. Then I think this news wire doesn't reflect your position.

Secretary CONNOR. That may have been a quote from an earlier part. I don't think this is the final answer. In my statement I make it clear that we don't have all the answers.

Mr. CUNNINGHAM. That is what I thought was your position. This bill is certainly not the total answer.

Secretary CONNOR. I think that statement should be amplified a bit. What I said on page 22, having to do with my comments on some of the bills that have been introduced by members of this committee and others, was that we should not attack this problem on a piecemeal basis nor pretend that we have all the answers by precise earmarking of funding resources to specific program areas. H.R. 13228 has been formulated to assist in meeting the total traffic safety needs of the Nation.



Mr. CUNNINGHAM. That clarifies that.

That leads me to this point. One of the weak links in traffic safety is the local engineering of local streets, and the weakest link of the three E's—education, engineering, and enforcement—is in enforcement.

Do you know of any way that legislation can be drawn that could set minimum standards before the courts in event of traffic violations so that millions of people are not punished if they are guilty of infractions of the traffic laws, get off with a slap on their wrists?

Is there any way that you know of that we can draft legislation that would get to the local courts where these penalties are meted out?

Secretary CONNOR. Congressman Cunningham, as you indicate, traffic law enforcement will remain primarily a local problem, particularly with respect to what happens on local city or community streets. The level of enforcement is a combination of many different factors. We do think that through the use of this grant program, which would be authorized under title III, there will be more traffic safety educational opportunities for police forces and so forth than is now the case.

When a specific case is brought by a local officer before a police judge or a local judge, I don't know how a Federal standard can affect it. I don't see how there could be a Federal minimum standard to tell that judge how to decide a particular case.

Mr. CUNNINGHAM. Or any standard whatsoever. We just don't have the constitutional power to do that, do we?

Secretary CONNOR. I don't think so, sir.

Mr. CUNNINGHAM. Are you aware of the fact that in spite of the seriousness of this problem, and we are all concerned with it, and I hope we can have a good bill, that the actual rate of accidents based on the number of automobiles has been declining in recent years?

Secretary CONNOR. Yes, sir. It did decline until about 2 or 3 years ago. It has gone up slightly in the last 2 or 3 years. I think as a rate, it indicates that we have the safest transportation system in the world, but this doesn't mean that improvements can't be made.

Mr. CUNNINGHAM. I understand that. But I remember when I was in the work back in 1949 where you would have about 40,000 fatalities per year nationally and now with so many more automobiles on the road, so many more drivers, it is estimated to be approximately 50,000, so in a sense somebody has been doing a fairly good job of at least holding us fairly even. Would you agree with that?

Secretary CONNOR. Yes, I think quite a few improvements have been made. There has been a reduction in this rate and it has sort of leveled off. It has gone up a little bit in the last couple of years, but we think that the interstate highway program has helped in this because the death rate on the Interstate System is substantially less than on the kind of roads replaced by it.

I think there is greater national attention to this whole problem. I think that the beneficial results are attributable to many factors, including the attention of the automobile industry.

Mr. CUNNINGHAM. Sir, I appreciate this exchange. The chairman wishes us to hold this short, so thank you very much, Mr. Secretary.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Mr. Cunningham.

I want to say that I certainly appreciate your frankness, Mr. Secretary, and your time. You have been very fine in the hearing today. I think you have done an excellent job.

You may not have answered every question, but you certainly have been forthright in trying to answer them. I think you have done a good job.

As Mr. Mackay said, this committee has a job to do. I am sure that by your being here today you have helped this entire committee in its desire to write a good bill.

I want to thank you very kindly, Secretary Connor, you and your associates, for your very fine patience, courtesy, and your attempts to answer all questions.

Secretary CONNOR. Thank you very much, Mr. Chairman. We would be very glad to help in any way we can in the further consideration of this by the committee. It is an important subject, as we all realize.

Thank you.

The CHAIRMAN. This probably will take some time yet before we are finished because we have many other facets to hear from, including the automobile industry, the tire industry, and probably others. We might be calling you back before it is over with for some more advice and comment.

Secretary CONNOR. We stand ready to help in any way we can, Mr. Chairman.

The CHAIRMAN. Again, thank you.

This committee will stand in recess until further call of the Chair. We have other business before this committee next week and the following week.

As I said this morning, I think this is one of the very most important things that affects the land, as the President said, after Vietnam. I agree.

(The following information was submitted by the Department of Commerce at the request of Chairman Staggers per letter of April 11, 1966:)

APRIL 11, 1966.

HON. JOHN T. CONNOR,  
*Secretary of Commerce,*  
*Washington, D.C.*

DEAR MR. SECRETARY: The Committee on Interstate and Foreign Commerce will resume hearings on H.R. 13228 and numerous other bills on traffic safety on April 26, 1966. You will recall that in the course of your testimony on this subject on March 17, you and Under Secretary Boyd discussed the role of the individual States in the overall field of safety. I believe that it would be a contribution to the record of this hearing if you would furnish the committee with the details of actions and practices of the individual States insofar as they bear on the overall subject now pending before the committee. In doing so, the views of the pertinent State agencies or departments on the legislative proposals now before the committee should be included.

Your cooperation on this task will be appreciated.

Sincerely yours,

HARLEY O. STAGGERS  
*M.C., Chairman.*



DEPARTMENT OF COMMERCE,  
Washington, D. C., May 2, 1966.

HON. HARLEY O. STAGGERS,  
*Chairman, Committee on Interstate and Foreign Commerce,*  
*U.S. House of Representatives, Washington, D.C.*

DEAR MR. CHAIRMAN: In reply to your recent letter, I am enclosing a brief survey of the actions and practices of the States in regard to traffic safety.

Pursuant to your request I have asked the States to send to me their views on the traffic safety legislation now before you. I will send you their comments as soon as they are received.

I hope this information will be helpful to your Committee. Please let me know if we can be of further assistance.

Sincerely yours,

JOHN T. CONNOR,  
*Secretary of Commerce.*

#### SUMMARY OF STATE TRAFFIC SAFETY PROGRAMS

The attached summary of State traffic safety actions and practices provides a general survey of current work in this area at the State level which are related to the programs to be supported under the proposed Traffic Safety Act of 1966.

The summary covers broad program categories and is not intended as an exhaustive description of all State or local activities in the field of traffic safety. Determinations on the scope, quality and effectiveness of these State programs must await development of safety standards which will provide the needed analytical criteria for this task. Such an evaluation process will become a continuing element of the proposed national program. Uniform standards are now being developed under the provision of Section 135, Title 23, U.S. Code and also will provide the basis for allocating Federal resources into those program areas which will produce maximum benefits.

Information in this summary was derived from studies made by the National Safety Council and from support documentation developed by the Bureau of Public Roads in formulating the Administration's proposals in the proposed Traffic Safety Act of 1966.

#### INDEX

##### General Survey of State Traffic Safety Programs.

- Area I. Highway Safety Programs.
- Area II. Accident Record System.
- Area III. Driver Performance.
- Area IV. Vehicle Safety.
- Area V. Highway Design and Maintenance.
- Area VI. Traffic Control.
- Area VII. Surveillance of Traffic.
- Area VIII. Manpower and Training.
- Area IX. Emergency Service.
- Attachments.

#### AREA I

*Highway Safety Programs.*—A comprehensive State program with authority, organizations, and resources that effectively meet the highway safety requirements established pursuant to section 135, title 23, United States Code, Public Law 89-139.

*From National Safety Council (40 States reporting).—*

25 States have a Coordinating Committee of Officials.

15 States hold regular meetings.

The Governor is chairman in 8 States and is a member of the committee in 8 additional States.

Committee membership generally represents: Engineering (29 States), enforcement (28 States), education (24 States), public health (20 States),

traffic court administration (22 States), motor vehicle administrator (24 States), legislation (12 States), and miscellaneous (11 States).

*Other.*—All States, District of Columbia and Puerto Rico have highway departments that coordinate and administer Federal-aid programs.

#### AREA II

*Accident Records System.*—An orderly process for collecting, recording, analyzing, and using motor vehicle traffic accident reports and traffic records to detect and correct accident prone locations and to gain insight into pertinent causative factors.

*From National Safety Council (40 States reporting).—*

33 States have some form of a central traffic accident records system (file) processing traffic accident reports.

38 States use data for traffic engineering studies.

37 States use data for public traffic safety education.

34 States use data for driver license administration.

32 States use data for traffic law enforcement.

*From Traffic Laws Commentary—NCUTLO July 1963.—*

24 States have general accident reporting laws (UVC).

34 States and District of Columbia require driver to file the report.

#### AREA III

*Driver Performance.*—The basic or beginning education and training of drivers, driver examination, suspension or revocation of driver licenses, and the improvement of licensed drivers through instruction, training, reexamination, and other actions.

*From Bureau of Public Roads Supporting Documents.—*

32 States plus District of Columbia have driver education support legislation.

8 States have driver education teacher certification standards exceeding NEA minimum standards.

2 States have no standards.

15 States issue a driver license at an earlier age than other applicants upon completion of an approved course of study.

All States and District of Columbia issue some form of a drivers license.

49 States and District of Columbia restrict duration of license (1 to 5 year generally 2 years).

All States and the District of Columbia disqualify for mental or physical fitness and drug addiction or habitual drunkardness.

All States and District of Columbia require some form of written examination.

5 States require a complete reexamination upon renewal.

All States and District of Columbia participate in National Driver Register Service.

*From Nation 1 Safety Council (40 States reporting).—*

29 States have driver retraining programs.

31 States use a medical board.

39 States have provisions for mandatory revocation.

*Other.—*

19 States have enacted the Driver License Compact.

#### AREA IV

*Vehicle Safety.*—Motor vehicle design, equipment and performance, vehicle registration, and motor vehicle inspection.

*From BPR Supporting Documents.—*

20 States and District of Columbia have motor vehicle inspection programs.

18 States have State appointed stations.

2 States and District of Columbia have State owned and operated stations.

19 States and District of Columbia charge a fee (\$1 to \$6).



All States and District of Columbia require licensing of motor vehicles.

*Other.—*

44 States and District of Columbia have joined the Vehicle Equipment Safety Compact.

32 States have enacted some type of seat belt law.

22 States and District of Columbia have enacted laws relating to brakes.

18 States and District of Columbia have enacted laws relating to tires.

AREA V

*Highway Design and Maintenance.*—The functional design of streets and highways, as this is involved with their safe use, and to the maintenance of safe operating conditions through the application of traffic engineering and suitable physical maintenance.

*From National Safety Council (40 States reporting).—*

38 States have traffic engineering unit with authority at staff level.

39 States consult traffic engineering unit on design.

38 States consult traffic engineering unit on construction.

38 States consult traffic engineering unit on construction signing.

37 States consult traffic engineering unit on detours.

*Miscellaneous Sources.—*

All States and District of Columbia have headquarters and field maintenance unit.

All States, District of Columbia and Puerto Rico have an organized highway department.

AREA VI

*Traffic Control.*—Measures and devices which govern or regulate the actions of highway users to achieve the orderly movement of people and goods, including traffic engineering techniques and control devices, legislation, courts, and police traffic supervision.

*From Bureau of Public Roads Supporting Documents.—*

18 States and District of Columbia have adopted Manual on Uniform Traffic Control Devices.

4 States and Puerto Rico have adopted Manual on Uniform Traffic Control Devices—with a supplement caring for minor revisions.

9 States have a State manual pending but adopted MUTCD in interim.

19 States have adopted their own State manual essentially conforming to MUTCD.

21 States have police training legislation.

49 States have a State police organization.

49 States have provisions for police traffic supervision.

*From National Safety Council (40 States reporting).—*

20 States give specialized accident investigation training.

34 States give training to recruits.

*Other.—*

12 States during 1964–1965 took some steps to upgrade their traffic courts.

10 States during 1964–1965 took steps to abolish the Justice of the Peace and other minor courts.

AREA VII

*Surveillance of Traffic.*—The processes of detecting and correcting high or potentially high accident locations by utilizing the functions of traffic engineering, police traffic supervision, traffic records systems, construction and maintenance, laws and the public individually and collectively.

*Other.—*

18 States have a system in their highway departments using a team concept of surveillance.

All States, District of Columbia, and Puerto Rico are currently making an inventory of hazardous locations on the Federal-aid systems.

48 States, District of Columbia, and Puerto Rico have programed Federal-aid safety improvement projects (2 remaining States are doing similar work without Federal funds).

#### AREA VIII

*Manpower and Training.*—The total manpower that should be mobilized to attain a level of highway safety commensurate with the public stake in the traffic accident problem; and the recruitment, preparation, and in-service training of appropriate personnel to perform this task.

*From.*—Association of State Universities and Land-Grant Colleges and the National Commission on Safety Education

15 States have established university transportation and accident prevention centers.

49 States and the District of Columbia offer some courses of study in highway safety.

#### AREA IX

*Emergency Services.*—The timeliness and adequacy of care and the services support system to assist persons involved in highway emergencies; including (1) detection of the incident, (2) response to the incident-site and protection of persons and property, (3) on-site services to persons and vehicles, (4) transportation and in-transit treatment of injured persons, and (5) hospital emergency care and facilities.

*Comments.*—There is no national survey of emergency service capabilities for the individual States. There have been selective studies prepared for individual States such as the California Survey of 1963, and the Seattle, Washington Survey of 1962. One of the first priorities of the Traffic Safety Program will be a national survey of emergency services for traffic accident victims.

There is a proposal pending to establish a demonstration project related to emergency medical services. The Proposal received from North Carolina officials is being reviewed by the Department of Commerce and the Department of Health, Education, and Welfare.

#### ATTACHMENTS

Motor Vehicle Deaths by States, 1962-1964—Table.

States with Driver Education Financial Support Legislation, 1947-1965—Map.

Survey of State Requirements for Motor Vehicle Operators—Table.

The National MVI Picture—Map.

State with Vehicle Inspection Programs—Table.

Status of Adoption by States of Uniform Traffic Control Device Manuals Since 1961 Edition of MUTCD, February 1, 1966—Map.

Police Training Legislation—Map.

Disbursements of Police Agencies for Traffic and other Related Functions, 1964—Table.

Comparison of Sworn Uniformed and Civilian Personnel for the Years 1940 and 1964<sup>1</sup>—Table.

<sup>1</sup> Source of the 1940 data, "State and Provincial Police," by David Geeting Monroe, Page 9.



## Motor vehicle deaths by States, 1962-64

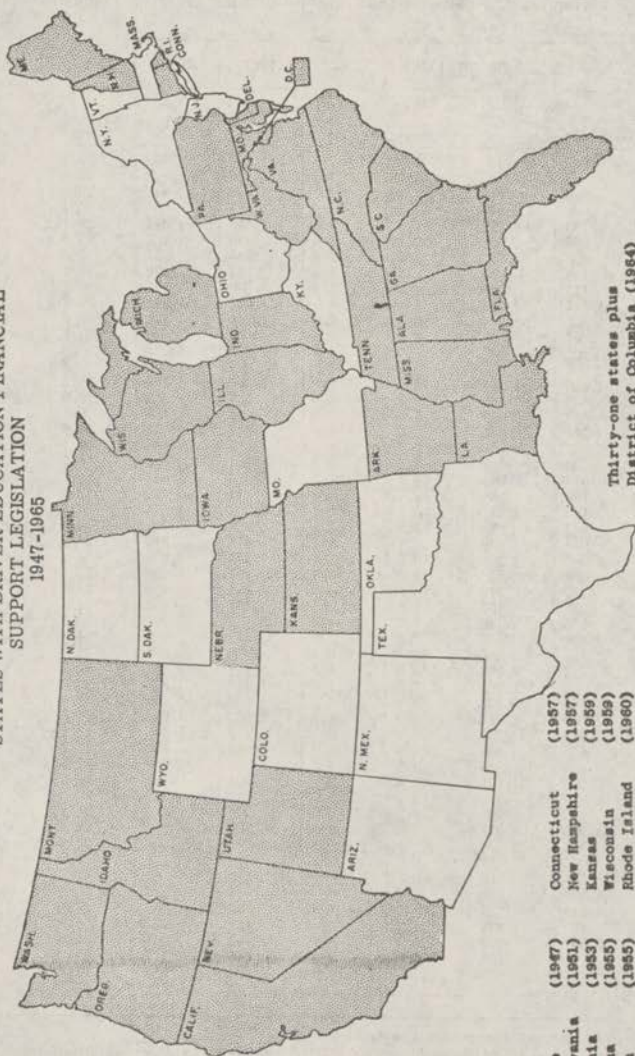
State	Motor vehicle traffic deaths (place of accident)				Total motor vehicle deaths <sup>1</sup> (place of residence)			
	Number		Mileage death rate <sup>2</sup>		Number		Population death rate <sup>3</sup>	
	1964	1963	1964	1963	1963 <sup>3</sup>	1962	1963 <sup>3</sup>	1962
Total United States.....					43,564	40,804	23.1	22.0
Alabama.....	968	970	7.0	7.5	1,049	999	31.1	30.0
Alaska.....	43	45	4.8	5.2	46	42	18.7	17.4
Arizona.....	588	513	7.2	6.6	440	443	29.0	30.2
Arkansas.....	640	595	7.4	6.8	581	505	30.5	26.9
California.....	4,743	4,318	5.2	5.0	4,586	4,312	26.1	25.4
Colorado.....	566	506	6.1	5.7	495	483	25.8	25.7
Connecticut.....	325	340	2.6	2.9	366	357	13.5	13.5
Delaware.....	118	96	5.3	4.3	85	91	17.7	19.5
District of Columbia.....	115	98	4.4	3.9	99	101	12.4	12.5
Florida.....	1,545	1,497	5.9	6.0	1,643	1,380	29.7	25.6
Georgia.....	1,302	1,278	6.6	6.8	1,248	1,131	29.6	27.5
Hawaii.....	97	86	4.3	4.0	94	86	13.7	12.6
Idaho.....	262	207	6.6	5.3	205	274	29.8	39.4
Illinois.....	2,207	2,028	5.1	4.9	2,009	1,908	19.4	18.6
Indiana.....	1,410	1,344	5.9	5.8	1,360	1,187	28.5	25.1
Iowa.....	833	695	6.7	5.8	740	638	26.9	23.9
Kansas.....	669	609	5.6	5.2	654	586	29.5	26.5
Kentucky.....	911	837	6.6	6.4	842	784	26.9	25.3
Louisiana.....	1,037	846	9.7	8.3	810	765	23.7	22.7
Maine.....	196	169	4.2	4.5	194	192	19.7	19.4
Maryland.....	616	596	4.2	4.3	620	615	18.5	19.0
Massachusetts.....	766	688	3.7	3.5	714	730	13.5	14.0
Michigan.....	2,120	1,887	5.5	5.2	2,002	1,654	24.9	20.9
Minnesota.....	841	801	5.2	5.1	852	781	24.4	22.4
Mississippi.....	648	659	7.7	8.2	678	619	29.7	27.2
Missouri.....	1,289	1,168	6.1	5.8	1,143	1,028	26.1	23.6
Montana.....	259	228	6.9	6.1	227	230	32.4	33.0
Nebraska.....	450	349	6.0	4.7	381	406	26.0	27.8
Nevada.....	215	197	8.8	8.6	160	132	41.1	38.0
New Hampshire.....	188	142	4.7	4.4	132	101	20.5	16.0
New Jersey.....	1,071	964	3.5	3.2	973	904	14.8	14.2
New Mexico.....	387	367	6.8	6.7	342	373	34.7	38.1
New York.....	2,745	2,349	5.1	4.5	2,498	2,531	14.1	14.5
North Carolina.....	1,580	1,386	7.7	7.0	1,416	1,343	29.6	28.4
North Dakota.....	185	193	5.3	5.7	203	190	31.5	30.0
Ohio.....	2,096	2,011	4.9	4.9	2,056	1,959	20.6	19.7
Oklahoma.....	785	765	6.0	6.1	712	708	29.2	29.1
Oregon.....	575	563	5.9	6.0	589	467	31.8	25.7
Pennsylvania.....	1,889	1,830	4.1	4.1	1,983	1,789	17.4	15.7
Rhode Island.....	100	91	2.8	2.7	103	91	11.5	10.3
South Carolina.....	870	796	8.1	7.7	757	720	30.2	29.4
South Dakota.....	270	220	7.2	5.9	220	260	31.1	37.0
Tennessee.....	1,059	941	6.9	6.4	990	906	26.4	24.6
Texas.....	3,006	2,729			2,800	2,536	27.4	25.1
Utah.....	295	263	6.2	5.8	270	233	27.8	24.3
Vermont.....	121	112	6.8	6.1	110	100	27.2	25.4
Virginia.....	1,050	989	5.4	5.3	940	939	22.0	22.4
Washington.....	730	633	5.0	4.5	685	657	23.1	22.3
West Virginia.....	467	434	6.9	6.6	435	437	24.0	24.0
Wisconsin.....	1,059	995	5.8	5.2	887	966	21.8	24.6
Wyoming.....	148	180	5.9	7.4	140	115	41.3	34.6
Puerto Rico.....	451	425	12.7	14.0	311	285	12.3	11.6
Virgin Islands.....	8	12			14	5	35.3	14.3

<sup>1</sup> Includes both traffic and nontraffic motor vehicle deaths.<sup>2</sup> The mileage death rate is the number of deaths per 100,000,000 vehicle miles; the population death rate is the number of deaths per 100,000 population.<sup>3</sup> Latest year available.

NOTE.—Mileage death rates may differ from those published by individual States due to late revisions in mileage data.

Source: National Safety Council, motor vehicle traffic deaths from State traffic authorities; total motor vehicle deaths from National Vital Statistics Division.

STATES WITH DRIVER EDUCATION FINANCIAL  
SUPPORT LEGISLATION  
1947-1965



Thirty-one states plus  
District of Columbia (1984)

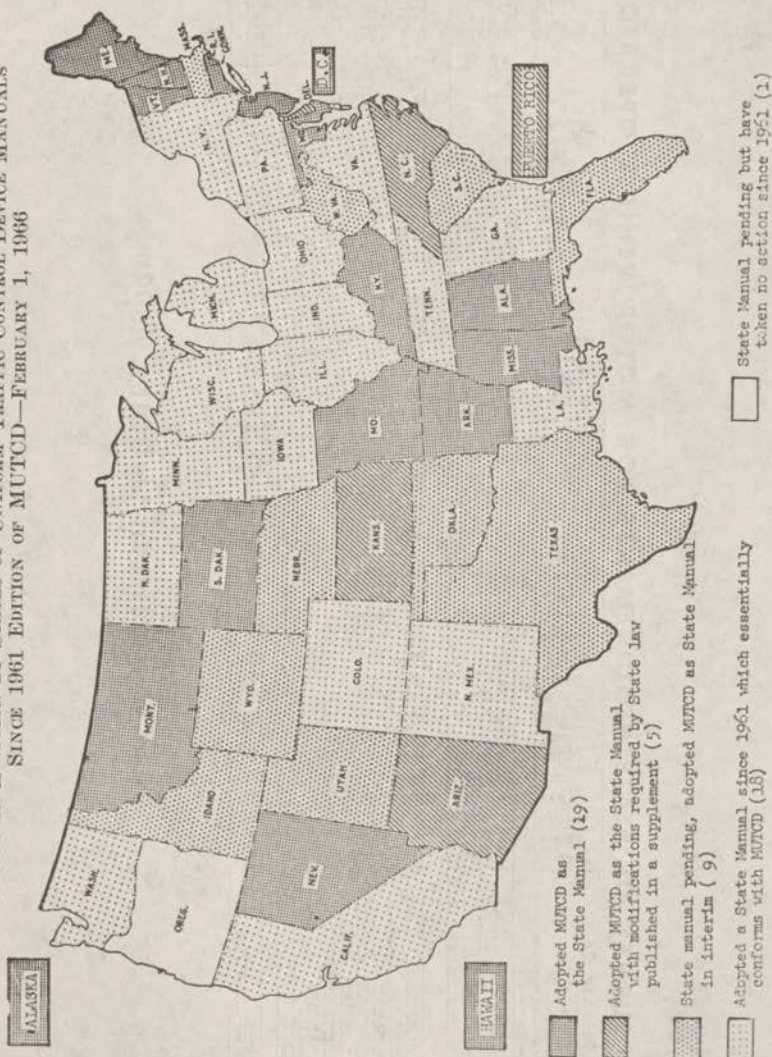
Source: NATIONAL SAFETY COUNCIL  
Driver Education Section  
August 1, 1965

Delaware	(1957)	Connecticut	(1957)
Pennsylvania	(1957)	New Hampshire	(1957)
California	(1953)	Kansas	(1959)
Louisiana	(1955)	Wisconsin	(1959)
Mississippi	(1955)	Rhode Island	(1960)
Michigan	(1955)	Massachusetts	(1961)
Florida	(1955)	Maryland	(1961)
Maine	(1955)	Idaho	(1961)
Oregon	(1957)	Mississippi	(1962)
Utah	(1957)	Virginia	(1962)
Illinois	(1957)	Washington	(1963)
Indiana	(1957)	Nebraska	(1963)
North Carolina	(1957)	Alabama	(1964)
West Virginia	(1957)	Nevada	(1965)





STATUS OF ADOPTION BY STATES OF UNIFORM TRAFFIC CONTROL DEVICE MANUALS  
SINCE 1961 EDITION OF MUTCD—FEBRUARY 1, 1966





STATUS OF ADOPTION BY STATES OF UNIFORM TRAFFIC CONTROL DEVICE MANUALS  
SINCE 1961 EDITION OF MUTCD, FEBRUARY 1, 1966

A. 19 States have adopted MUTCD—

Alabama	Montana
Alaska	Nevada
Arkansas	New Hampshire
Connecticut	New Jersey
Hawaii	Rhode Island
Kentucky	South Dakota
Maine	Vermont
Maryland	Idaho
Mississippi	District of Columbia
Missouri	

B. 5 States have adopted the Uniform Manual as the State Manual with minor additions or modifications required by State law published in a supplement—

Arizona	Kansas
Delaware	Puerto Rico
North Carolina	

C. 9 States have a manual pending, but have adopted the MUTCD in the interim—

Florida	Texas
Massachusetts	Utah
Nebraska	West Virginia
Oklahoma	Wyoming
South Carolina	

D. 18 States have adopted their own State manual since 1961 and essentially conform to MUTCD—

California	New Mexico
Colorado	New York
Georgia	North Dakota
Illinois	Ohio
Indiana	Pennsylvania
Iowa	Tennessee
Louisiana	Virginia
Michigan	Washington
Minnesota	Wisconsin

E. 1 State—Oregon—has a manual pending, but has taken no action since 1961 edition.







## Disbursements of police agencies for traffic and other related functions, 1964

[In thousands of dollars]

State	Traffic super- vision <sup>1</sup>	Safety education	Size and weight enforce- ment	Driver's license exami- nation	Motor vehicle inspection	Communi- cations	Training	Adminis- tration and other supporting services <sup>2</sup>	Total traffic- related disburse- ments	Non- traffic- related activities	Total disburse- ments
Alabama.....	2,447	1,311		802					4,560	189	4,749
Alaska.....	657								657		657
Arizona.....	4,910								4,910		4,910
Arkansas.....	1,852	263		58					1,603	375	1,978
California.....	3,529	1,339	1,556			2,050	1,572	4,959	43,211		43,211
Colorado.....	3,824	16				328		437	4,614		4,614
Connecticut.....	3,895	16				344		439	4,469		4,469
Delaware.....	3,460								1,475		1,475
Florida.....	1,713	26		1,460		90		2,401	8,673		8,673
Georgia.....	3,861			1,938					4,809	1,366	6,175
Hawaii.....											
Idaho.....	1,102	72	434						1,608		1,608
Illinois.....	12,448	244	684						13,376	612	13,988
Indiana.....	3,556	736	185					1,428	6,905		6,905
Iowa.....	3,022			417					3,439		3,439
Kansas.....	2,896							27	2,923		2,923
Kentucky.....	5,191	195		189				365	5,575		5,575
Louisiana.....	4,323	69	135	1,799	310				7,201		7,201
Maine.....	1,881								1,881		1,881
Maryland.....	5,036								8,344	359	8,703
Massachusetts.....	5,888						181	2,772	5,838		5,838
Michigan.....	7,094	286				369		1,142	8,980		8,980
Minnesota.....	6,214		41				87		5,255		5,255
Mississippi.....	6,279	121		300				787	4,821		4,821
Missouri.....	5,009	175	595	642	93	332		154	7,463		7,463
Montana.....	1,069			410				302	1,781		1,781
Nebraska.....	1,122	29				110	8	772	2,041		2,041
Nevada.....	637								637		637

See footnotes at end of table.

*Disbursements of police agencies for traffic and other related functions, 1954—Continued*  
 [In thousands of dollars]

State	Traffic super- vision <sup>1</sup>	Safety education	Size and weight enforce- ment	Driver's license exami- nation	Motor vehicle inspection	Communi- cations	Training	Adminis- tration and other supporting services <sup>2</sup>	Total traffic- related disburse- ments	Non- traffic- related activities	Total disburse- ments
New Hampshire	1,147	80				63		67	1,357		1,357
New Jersey	8,506		121						8,027		8,027
New Mexico	2,341	25		14		262	32	37	2,711		2,711
New York	19,345				387				19,732		19,732
North Carolina	6,117	15							6,117		6,117
North Dakota	709			37					761		761
Ohio	10,092	155		945				765	11,957		11,957
Oklahoma	2,941		236	372		246		47	3,842		3,842
Oregon	3,199					34		356	3,581		3,581
Pennsylvania	17,121								17,121		17,121
Rhode Island	788			373					788		788
South Carolina	3,314		87						3,774		3,774
South Dakota	996	45	116					24	1,181		1,181
Tennessee	3,432	90		430			6	787	4,892		4,892
Texas	6,497	194	750	2,853	698	77			11,062		11,062
Utah	1,063	23	375	373					2,434		2,434
Vermont	736	23	21						1,032		1,032
Virginia	6,077	167				24	250	169	8,387		8,387
Washington	3,663	270	654	808		835	79	1,105	7,087	694	8,381
West Virginia	1,688				97	1,108			2,055		2,055
Wisconsin	1,786		371			487	73	995	3,712		3,712
Wyoming	860	23							883		883
Total	232,224	6,142	6,361	13,398	1,555	7,120	2,288	21,385	290,383	3,595	293,978

<sup>1</sup> Includes all of the costs of the agency where itemized expenditures were not available.

<sup>2</sup> Not included in police study.

<sup>3</sup> Includes safety responsibility and pension funds.



*Comparison of sworn uniformed and civilian personnel for the years 1940 and 1964<sup>1</sup>*

State	Sworn uniformed personnel		Civilian personnel		Total	
	1940	1964	1940	1964	1940	1964
Alabama.....	134	561	27	204	161	765
Alaska.....		101		46		147
Arizona.....	41	319	10	66	51	385
Arkansas.....	61	218	7	60	68	278
California.....	719	2,795	197	907	916	3,702
Colorado.....	116	332	16	141	132	473
Connecticut.....	225	802	85	201	310	703
Delaware.....	92	221	15	53	107	274
Florida.....	60	614	4	596	64	1,210
Georgia.....	168	420	12	326	180	746
Hawaii <sup>2</sup> .....						
Idaho.....	40	140	46	27	86	167
Illinois.....	350	1,145	127	525	477	1,670
Indiana.....	221	651	85	232	306	883
Iowa.....	128	285		82	128	367
Kansas.....	67	223	5	80	72	303
Kentucky.....	113	457	10	198	123	655
Louisiana.....	439	554	26	491	465	1,045
Maine.....	109	244	11	47	120	291
Maryland.....	104	733	34	249	138	982
Massachusetts.....	323	614	105	164	428	778
Michigan.....	443	1,170	131	305	574	1,475
Minnesota.....	125	377	13	86	138	463
Mississippi.....	85	378	18	118	103	496
Missouri.....	175	505	48	440	223	945
Montana.....	71	143	9	66	80	209
Nebraska.....	67	225	3	45	70	270
Nevada.....	11	50	3	16	14	66
New Hampshire.....	52	126	12	17	64	143
New Jersey.....	319	996	70	242	389	1,238
New Mexico.....	42	204	4	66	46	270
New York.....	895	2,464	34	282	929	2,746
North Carolina.....	188	648	41	185	229	833
North Dakota.....	13	80	5	6	18	86
Ohio.....	200	855	60	409	260	1,264
Oklahoma.....	125	348	18	253	143	601
Oregon.....	168	535	17	91	185	626
Pennsylvania.....	1,516	2,015	141	312	1,657	2,327
Rhode Island.....	71	119	10	21	81	140
South Carolina.....	154	460	25	2	179	462
South Dakota.....	17	88		36	17	124
Tennessee.....	100	518	32	200	132	718
Texas.....	340	1,398	98	1,014	438	2,412
Utah.....	50	152	6	41	56	193
Vermont.....	37	111	26	53	63	164
Virginia.....	178	745	42	304	220	1,049
Washington.....	167	369	50	380	217	749
West Virginia.....	218	279	32	85	250	364
Wisconsin.....	45	222	2	187	47	409
Wyoming.....	15	75	1	11	16	86
Total.....	9,397	26,784	1,773	9,968	11,170	36,752

<sup>1</sup> Source of the 1940 data—"State and Provincial Police" by David Geeting Monroe, page 9.

<sup>2</sup> Hawaii has no State police organization; each island has its own police department.





*States with vehicle inspection programs—State-appointed stations, revised to Jan. 1, 1966*

State	Number of stations			License fee paid by station	Fee per inspection			State personnel		Bond per station
	Public	Fleet owners	State, county, city		By owner	To station	To State	Head-quarters	Field	
Colorado.....	3,700	50	75	None	\$1.50	\$1.40	\$0.10	1	14	None
Hawaii.....	63	68	7	None	6.00	3.00	3.00	2	1	None
Louisiana.....	1,250	293	63	\$10.00	1.00	.75	.25	6	24	\$2,000
Maine.....	1,550	119	51	2.00	1.00	.90	.10	3	11	None
Massachusetts.....	3,130	400	50	None	1.00	1.00	-----	7	38	None
Mississippi.....	1,000	200	-----	10.00	1.25	1.00	.25	4	12	1,000
Newfoundland.....	400	6	4	None	2.00	2.00	-----	2	-----	None
New Hampshire.....	1,286	29	17	15.00	( <sup>1</sup> )	All	-----	3	9	None
New Mexico.....	1,157	62	38	5.00	1.00	.90	.10	4	11	500
New York.....	7,811	947	100	25.00	<sup>2</sup> 2.00	All	.25	28	40	None
North Carolina <sup>3</sup> .....	1,100	100	-----	None	1.50	1.25	.25	12	63	None
Pennsylvania.....	14,997	1,129	227	None	2.50	All	-----	128	-----	None
					to 4.00					
Rhode Island.....	1,100	145	-----	5.00	1.00	.90	.10	2	5	None
Texas.....	5,408	432	-----	5.00	1.00	.75	.25	2	12	1,000
Utah.....	1,407	74	-----	None	1.00	1.00	-----	2	1	1,000
Vermont.....	770	36	-----	None	1.00	1.00	-----	3	6	None
Virginia.....	2,102	180	111	None	1.00	1.00	-----	9	( <sup>4</sup> )	None
West Virginia.....	797	463	-----	None	1.25	1.00	.25	1	16	None

<sup>1</sup> No set fee.

<sup>2</sup> \$2 fee in Greater New York City; \$1.50 elsewhere.

<sup>3</sup> North Carolina program begins Feb. 16, 1966.

<sup>4</sup> Virginia uses all State police.

*States with vehicle inspection programs—State owned and operated stations, revised to Jan. 1, 1966*

State	Number of stations		Fee per inspection	State personnel	
	Open to public	Fleet owners		Head-quarters	Field
Delaware.....	3	None	None	10	60
District of Columbia.....	2	None	\$1.00	4	61
New Jersey.....	40	6	1.00	23	610

(The following letter, with proposed amendments to H.R. 13228, was submitted by Hon. Thomas G. Morris:)

HOUSE OF REPRESENTATIVES,  
Washington, D.C., March 28, 1966.

HON. HARLEY O. STAGGERS,  
Chairman, House Committee on Interstate and Foreign Commerce,  
House of Representatives, Washington, D.C.

DEAR CHAIRMAN STAGGERS: In accordance with a telephone conversation today between a member of my staff and Mr. Glenn L. Johnson, I am enclosing my suggested "Amendments to H.R. 13228."

It is my understanding that three full days of hearings have already been held on H.R. 13228 and that further hearings will be held beginning April 26, 1966, at which time it is hoped that the Full Committee will extend careful consideration to my proposed amendments.

The tragic deaths of more than 40,000 people in our country annually from traffic accidents clearly indicates the need for Federal legislation.

I sincerely believe that my suggested amendments will materially strengthen this Bill.

Sincerely yours,

THOMAS G. MORRIS.

Enclosure.

## AMENDMENTS TO H.R. 13228

Proposed by Mr. Morris

Page 19, strike out lines 16 through 22, inclusive, and insert in lieu thereof the following:

## BRAKE FLUID STANDARDS

SEC. 112. (a) The Act entitled "An Act to provide that hydraulic brake fluid sold or shipped in commerce for use in motor vehicles shall meet certain specifications prescribed by the Secretary of Commerce", approved September 5, 1962 (P.L. 87-637, 15 U.S.C. 1301-1303), is hereby repealed except that any rights or liabilities existing on the date of enactment of this Act under such Act of September 5, 1962, shall not be affected by this repeal.

Page 19, line 23, strike out "laws" and insert in lieu thereof "law".

Page 20, after line 3, insert the following:

## SEAT BELT STANDARDS

SEC. 113. The second sentence of the first section of the Act entitled "An Act to provide that seat belts sold or shipped in interstate commerce for use in motor vehicles shall meet certain safety standards", approved September 13, 1963 (P.L. 88-201, 15 U.S.C. 1321), is amended to read as follows: "Such standards shall be designed to provide the public with safe seat belts so that passenger injuries in motor vehicle accidents can be kept to a minimum, and such standards shall provide that the seat belt for the driver of the vehicle shall be so designed that the engine of such vehicle cannot be started unless the driver's seat belt is fastened."

And renumber succeeding sections and references thereto accordingly.

(Whereupon, at 4 p.m., the committee recessed, to reconvene at the call of the Chair.)



## TRAFFIC SAFETY

---

TUESDAY, APRIL 26, 1966

HOUSE OF REPRESENTATIVES,  
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,  
*Washington, D.C.*

The committee met at 10 a.m., pursuant to call, in room 2123, Rayburn House Office Building, Hon. Harley O. Staggers (chairman) presiding.

The CHAIRMAN. The committee will come to order.

Today we resume hearings on H.R. 13228, the Traffic Safety Act of 1966, and a number of other bills dealing with the overall subject of traffic safety, as well as bills which deal with particular subjects related to traffic safety.

I described these bills in general terms at the opening of our hearings on March 15. All of them will be set forth in full when these hearings are printed.

As I stated when we commenced hearings on traffic safety, this is a most serious problem. It is a legislative matter which requires careful attention and action. In the first 3 days of the hearings, testimony was taken from a number of Members of Congress, the Secretary of Commerce and members of his staff, and a representative of the National Educational Association, their division of safety education.

Today we will hear from any Members of Congress who are present for the purpose of submitting testimony, and then we will proceed with representatives from the Automobile Manufacturers Association. We have an extensive list of witnesses, and it is the intention of the committee to hold hearings today, tomorrow, and Thursday of this week, and then to recess until Tuesday of next week for additional sessions.

We want a complete record on this subject. However, because of the considerable number of people who want to be heard, I will request that witnesses summarize any lengthy prepared statements rather than giving them to us word for word. In addition, I would also request that the witnesses cooperate wherever possible to avoid repetition of testimony.

It would be too bad if these hearings should degenerate into a session of petty accusations. Such statements as that of the manufacturer who is reported to have said in a formal speech, "The driver is the most important part of the whole thing because if you drive safely, accidents won't happen," are more likely to create resentment than to reassure people.

Everybody knows that the blame for accidents is widespread. What we want to do is cut down accidents, not to put the finger on anybody. A dead man in a twisted-up tangle of metal cannot tell whether the

primary cause of his wreck was his own foolish driving or the foolish mistakes of the engineer who designed the vehicle, or the foolish neglect of the manufacturer who built the machine less safe than he knew how; nor can the investigators be sure in many cases.

So we hope that every person speaking before this committee will try earnestly to contribute light rather than heat to a problem which at best is going to be quite baffling. Otherwise, we will just waste a lot of valuable time while the gruesome accident totals keep on mounting.

At this time we will hear from any Members of Congress that we have present. I understand Congressman Hansen is present.

Would you please come forward, Congressman?

Congressman Hansen, we are very happy to have you here. I want to congratulate your constituents for your interest in this vital subject, which is vital to them and to every American. Did you wish to put your statement into the record?

#### STATEMENT OF HON. JOHN R. HANSEN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF IOWA

Mr. HANSEN. Thank you, Chairman Staggers and members of the committee, for giving me the opportunity of appearing before you first this morning and expediting matters for me.

I will make just one or two brief comments and then ask for permission to file a statement which is not at the desk of your staff.

The real thrust of this measure, and the need for it, was brought to the forefront very forcibly last week when President Johnson, in his proclamation on transportation and traffic safety, pointed out that more servicemen alone met death by accidents in this country than were killed on purpose by the combined efforts of the Vietcong and the North Vietnamese on the battlefields in southeast Asia.

It is heartening to note the extreme interest that has been expressed in this measure, and it appears that the vast majority of the American people subscribe to the admonishment that the AA's give each other when they say, "God grant me the strength to change the things that I can change, the serenity to accept that which I cannot change, and the wisdom to know the difference."

Again I want to thank you for your time, and again ask that a statement which I have placed before your clerk be placed in the record.

Thank you very much.

The CHAIRMAN. Your statement will be placed into the record. We thank you for giving us your views.

(Mr. Hansen's statement follows:)

#### STATEMENT OF HON. JOHN R. HANSEN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF IOWA

Chairman Staggers and members of the Interstate and Foreign Commerce Committee, I appreciate very much the opportunity to appear before your Committee on this important matter of traffic safety.

Over the past several years, I have become more and more concerned with the carnage on our highways.

As I studied the 1965 National Safety Council report, I was appalled to learn that last year 49,000 persons were killed on our highways, 1.8 million were seriously injured and the economic loss totaled \$8.5 billion. These are staggering



figures. And yet we treat this problem as though it were nothing more than the common cold—a nuisance, but one we must accept without protest.

It is page one news when three soldiers die of meningitis, but it is ho-hum when nearly a thousand human beings are brought home dead off the highways every week.

The tragic proportions to which this has reached is clearly pointed out by the American Trial Lawyers Association in a recent report. The Association contrasted two impressive figures. 605,000 Americans have died in all battles in all wars from the Revolution to Vietnam while highway deaths in the United States have reached over 1.5 million in only 25 years. A corollary of this is that the 1.8 million injured last year is more than the total beds in all U.S. hospitals.

As the President said in his recent message on transportation:

"The weaknesses of our present highway safety program must be corrected. Our knowledge is grossly inadequate. Expert opinion is frequently contradictory and confusing.

"Existing safety programs are widely dispersed. Government and private efforts proceed separately, without effective coordination.

"There is no clear assignment of responsibility of the federal level.

"The allocation of our resources to highway safety is inadequate.

"Neither private industry nor government officials concerned with automotive transportation have made safety first among their priorities. Yet we know that expensive freeways, powerful engines, and smooth exteriors will not stop the massacre on our roads."

If we are to meet this problem then we must go to work now. Much more research is necessary before general lowering of the accident rate can be expected. The research already done has been too sketchy. More coordinated study will be necessary. We still have no paving which is proof against skidding. Night is the greatest killer. Sixty per cent of the highway deaths occur then, when traffic is lightest. It is not known which type of highway lighting is best. Nor are there headlights which will give the driver an adequate view of what is ahead and still not blind the other fellow. At present there is no adequate reporting on the details of accidents. No one but the National Safety Council even attempts to compile records.

The automobile industry recognizes and welcomes federal interest in providing for more assistance in traffic safety. There is an important opportunity for federal influence in standardizing requirements for driver registration and periodic car inspection.

What is needed is more cooperation and less buck-passing. It is alright to level criticism at the auto industry when it is justified, but at the present moment they need help rather than criticism from Congress.

In a recent series of articles on automobile safety in *Newsweek*, Raymond Moley drew some conclusions that could prove helpful to us in trying to understand the need for legislation in this field.

Included in his conclusions were:

(1) Measures to assure more safety must be directed at the driver, the environment and the vehicle, with most emphasis upon the first two. Here the leadership must come from government and the automotive industry.

(2) Accident reporting is sketchy and varied, according to the jurisdiction in which the accident occurs. Thus, the raw data on which remedial conclusions can be reached are insufficient.

(3) This lack of data greatly handicaps the many research activities that have been conducted for years by the automotive industry, the governments and various private agencies. The result is that those concerned have inadequate information upon which methods of improvement can be built.

(4) It must be realized that the tremendous impact of the automobile on our civilization has created problems which have accumulated so fast that all those concerned have had difficulty in mastering them.

(5) The pressing needs are not only for more information, study and research but, on the basis of what we now know, for more uniform and stricter tests for drivers; for more driving education, especially for the young; for inspection of all cars by public authority; for national standards in road construction and improvements and for more safety devices in new cars.

In my opinion these conclusions are valid and underscore the need for a National Traffic Safety Agency equipped to conduct major programs of research and engineering. Out of these studies would come certain national minimum stand-

ards for highway traffic safety. These could easily become the standards which would be applied to the design of automobiles, the engineering of highways, the fixing of speed limits and the training and licensing of drivers.

Personally, I can not understand why corrective action has not been taken before this. It is because of my deep concern that I was happy to join my colleagues in sponsoring a bill for the establishment of a National Highway Traffic Safety Agency.

Some have suggested that we should hold up this measure until Congress has had an opportunity to act on the President's recommendations for a Department of Transportation. I do not hold this view. With approximately one thousand persons dying every week it is imperative that we begin as soon as possible to attack this problem. If and when, a Transportation Department is established, it will be no problem to turn over the work of the Safety Agency to it.

The bewildering cries of the bruised, battered and bereaved echo throughout our land. It is our call to action. As the President has said, "We must insure the safety of our citizens as they travel on our land \* \* \*."

Mr. ROGERS of Texas. Mr. Chairman, I want to compliment Congressman Hansen for the fine work he has done in this particular field. I have read his statement with interest, and I am very grateful to receive it.

Mr. HANSEN. Thank you very much.

Mr. CUNNINGHAM. I would ask our distinguished colleague to again repeat what the President said. I was there and I don't believe that is what he said.

Mr. HANSEN. I don't want to disagree, Congressman Cunningham. I thought I heard what I said I heard. I verified it by telephone with the White House staff the day before yesterday and yesterday again to make sure that I was right in what I was asserting that the President had stated. This was in a TV statement. This is where I heard it, over the TV.

Mr. CUNNINGHAM. I think what he said was there were 50,000 people killed in traffic accidents and a number of soldiers killed in Vietnam. That was the gist of his statement.

Mr. HANSEN. I think that was also stated in the statement that I have referred to.

Mr. CUNNINGHAM. Of course, comparing deaths on the highway with combat deaths is an old cliché that can easily have holes punched in it.

Mr. HANSEN. That may very well be, but it is still interesting to note.

The CHAIRMAN. Are there any further questions?

Mr. NELSEN. Might I make an observation? My attention has been directed to an examination of the accident record nationwide and it seems that the secondary roads have more accidents than the well marked Federal highways. One of the big gaps is adequate and uniform marking on the federally supported secondary roads, yet there is nothing in our legislation that would give to the administrative authorities in charge of these roads some assistance in the way of providing adequate marking.

I think later on our committee might well go into that, because it would seem to me there is evidence that the roads are not well marked at the dangerous corners, curves, and other highway changes. They are not well marked.

Mr. Chairman, I want the record to show this. I thank the gentleman for his testimony.



Mr. HANSEN. I think Congressman Nelsen is right. The record does show that in my own county, for example, in Iowa, there are more deaths on secondary roads than on primary highways.

The CHAIRMAN. Are there any further questions?

If not, Congressman Hansen, we thank you for coming before us today.

Mr. HANSEN. Thank you.

The CHAIRMAN. Are there any other Members of Congress who wish to appear this morning?

At this time I would like to call on Congressman Farnsley, a member of this committee, who would like to give a statement. This has been a subject of Congressman Farnsley's interest for a long, long time.

**STATEMENT OF HON. CHARLES P. FARNSLEY, A REPRESENTATIVE  
IN CONGRESS FROM THE STATE OF KENTUCKY**

Mr. FARNSLEY. Thank you, Mr. Chairman.

You have heard me say often that I learned a good deal about this when I was mayor of Louisville for 6 years. The traffic engineer taught me.

One thing we found was that one-way streets reduce accidents a great deal. They are usually just sideswipes. The same thing has been proven in Virginia and California with one-way highways, where you have a crowded highway and you build another one that goes by the side of the town or back of the people's farms. It is a very inexpensive way to get very safe highways.

I feel that we are divided into two groups. The manufacturers tend to say it is the driver's fault, and the Government tends to say it is the manufacturer's fault. I think everybody is doing the best they can, but I would like to take out after public roads and the highways and the Government.

The Secretary of Commerce was in here the other day, and when I read him that statement which I have given all of you from the Library of Congress, that one-third of the automobile accidents could be avoided by having adequate street and highway lights, he said: "This is well known. We know this is true. But we have to balance the various needs or various demands for money."

I would like to know how much he puts in the balance, how he evaluates the 20,000 lives that well-lighted highways and streets would save, and the 35 times that many injured people. I think the Government is very much at fault. We haven't done our homework. It is just a simple fact that people can't see in the dark. Most of the accidents are at night, and every time highway and street lights have been put in, accidents have dropped in half, the ones at night.

I have that statement from the Library of Congress. I will have it here in a little while with copies for anyone who wants it. I am grateful to have this opportunity to appear.

It is very inexpensive to light streets and highways. The Federal Government ought to set the pattern by doing it on the highways and then the cities would follow when they understood what it would do.

Of course, it is a dividend that the lights will cut crimes of violence in half, and juvenile delinquency in half. Washington could be well

lighted for less money than is being spent to poorly light it. Most of the lights in Washington were designed in the year I was born, 1907. They are proud of the fact that it is a new model, a 1923 model. They use incandescent light, whereas, fluorescent would give four times as much light for the same money, and the modern light would direct it on the streets and sidewalks and they would get 10 times as much light for the money. The policemen wouldn't have to have dogs when they go out at night in this town, the way it is now.

It is just a major national tragedy. This simple thing could be done, but it isn't being done. I seem to be the only one wanting it. A man told me the other day that the Ph. D.'s at the Democratic National Committee are very tired of hearing about your street lights. Every time they want me to vote for something, I say, "What about street lights?"

Thank you for giving me a chance to appear this morning.

Are there any questions?

The CHAIRMAN. Mr. Congressman, we are happy to have you with us this morning to give your comments. We are happy to have your views. We know that you are very much interested in this.

I would like to make this statement now: that this committee, and I believe the country, recognizes there are three factors: The vehicle, the road, and the driver. We know that we are going to have to have safer highways and better lighting. We are hopeful of working out the three factors in one bill. This is not entirely within our province, but we are going to look at it, I assure you.

Mr. FARNSLEY. Public Roads is under Secretary Connor, and he is under us, but we can do nothing about lights.

The CHAIRMAN. We will certainly be sure that we look into this. This is a subject that we will work on.

Mr. SPRINGER. Mr. Chairman, may I say to my distinguished colleague and member of this committee that I am delighted he has come up with this idea, and also that he would rather light a candle than curse the darkness.

Mr. FARNSLEY. Thank you so much.

The CHAIRMAN. Are there any other comments or questions from any member of the committee?

Mr. ROGERS of Texas. Mr. Chairman, let me compliment the gentleman from Kentucky. I have heard and understand that he is not going to run again. I regret that very much because he not only adds a lot to the thought processes in these matters, but he always has some humor that spices them up. I can understand why he was elected mayor and what a great job he did before he came to Congress.

Mr. FARNSLEY. Thank you, Mr. Rogers.

The CHAIRMAN. Are there any further comments?

If not, we want to thank you very kindly for your comments this morning.

Mr. FARNSLEY. Thank you.

The CHAIRMAN. We have another member of our committee, a very valuable member, who would like to make a statement at this time. We will now hear from Congressman Friedel of Maryland.

We are very happy to have you with us this morning, Mr. Friedel.



STATEMENT OF HON. SAMUEL N. FRIEDEL, A REPRESENTATIVE  
IN CONGRESS FROM THE STATE OF MARYLAND

Mr. FRIEDEL. Mr. Chairman and my colleagues, I want to thank the committee for this opportunity to speak on this very, very important bill.

On March 7, 1966, I introduced H.R. 13348, a bill for a coordinated national safety program and the establishment of safety standards for motor vehicles in interstate commerce to reduce traffic accidents and the deaths, injuries, and property damage which occur in such accidents. I strongly urge its favorable consideration by this committee.

Slaughter on the highway, which is a growing and seemingly insoluble problem, has prompted me to seek a possible solution.

The problem of highway accidents has assumed such gigantic proportions in the fearful loss of life, limb, property damage, all totaling billions of dollars of loss, that we must inevitably move toward new approaches and concepts in our thinking.

Over the years, I have addressed myself to the promotion of safety. On January 3, 1956, I introduced House Resolution 349, to establish a select committee in the House of Representatives to conduct investigations and make recommendations to help reduce the number of traffic accidents. Our investigations were very thorough and we have continued our efforts since the duties of that select committee were taken over by the full Interstate and Foreign Commerce Committee.

I was also the author of House Concurrent Resolution 448 last year to designate a "Crusade for Safety" day which was passed by both Houses of the Congress. In addition, I was instrumental in having a special "Traffic Safety" stamp issued last year to call public attention to the need for safe driving.

These things are mentioned for the sole purpose of underscoring the fact that I have studied this subject for many years.

Safety on the highway involves three elements—the driver, the motor vehicle, and the road. The United States has 83 million automobiles and trucks, or 53 percent of the world's vehicles registered. The other countries all together have but 72 million.

Each week of the year, on an average, approximately 1,000 persons are killed and an additional 34,000 are injured. Motor vehicle statistics for the year 1964 reveal that there were 47,700 deaths and 1,700,000 disabling injuries; the direct cost of accidents on the highway exceeded \$8 billion.

In 1964, one driver out of every five was involved in an automobile accident. From 1900 through 1964, motor vehicle deaths in the United States totaled 1,510,000. U.S. military battle deaths in all wars from 1775 through 1964 totaled but 605,000. These statistics are frightening.

The number of injured persons in reported highway accidents in 1964 is exactly the same as the total number of hospital beds in the United States. The total direct cost of motor vehicle accidents in 1964 is the same as the year's total outlay for highway construction and improvements.

The true number of unknown additional unreported accidents and injury victims is enormous. Additional billions of dollars in indirect

losses in wages, production, and other economic displacements are incalculable.

The projections for highway deaths 10 years hence indicate 100,000 Americans will die annually on our highways, with untold millions being maimed each year. We are headed for this frightful carnage unless we can attack the problem successfully on a broad front.

The time to attack this problem is here and now.

We must, therefore, address ourselves to the important task of improving our record and seeking ways and means to prevent, as far as humanly possible, accidents involving motor vehicles.

People are generally likely to think that auto accidents involve two or more vehicles. However, I should like to invite the attention of the committee to "one-car accidents."

More than 19,500 Americans are likely to die this year in the most mysterious of traffic accidents—the one-car mishaps that cause 42 percent of the traffic fatalities. A National Safety Council survey of 405 urban and rural areas in 24 States revealed that one-car accidents, only 7 percent of the urban total, caused 31.3 percent of urban traffic deaths. In rural areas, one-car accidents accounted for 40.4 percent of mishaps but 49.1 percent of traffic fatalities.

The Chicago Citizens Traffic Safety Board found that the death rate in single-car collisions is 20 times the rate in two-car collisions. One of 74 one-car accidents resulted in death contrasted with an average of 1 death in 1,440 two-car collisions.

A recent survey of 56 one-car fatal accidents in an urban county disclosed that in 18 cases, carbon monoxide was found in the blood of drivers or passengers. Here is a very significant clue showing the need for better mufflers and leak-proof exhaust systems in cars and trucks.

At this point I should like to invite the attention of the committee to an ingenious and inexpensive attachment—the spaceometer, which should be on all automobiles. The cost of this lifesaving device is estimated to be less than 25 cents for each. This instrument not only indicates the speed and mileage, but also would constantly show the number of car lengths that a vehicle should be behind the one ahead for adequate safety. It is the invention of Mr. Charles Adler, a Baltimore inventor of numerous airplane and other electronic devices, who has assigned all profits from the manufacture of this device over to the State of Maryland for traffic safety purposes.

Safety in motor vehicles must be built in. Today's cars provide a far larger glass area for visibility to drivers than was formerly the case. The rear or back window has been made larger and larger so that the driver can have an unobstructed view of the traffic which is traveling in the same direction as he is. The manufacturers of the motor vehicles are to be commended for this.

If the operator of a vehicle, with the aid of his rearview mirror, can see clearly the autos and trucks behind him and observe their relative speed and the movements of their respective operators in attempting to pass his car either to the right or left, safety on the road is promoted. However, in case of a hard rain, ice, or snow, the rear window no longer can serve its purpose. In those instances the operator cannot see the vehicles behind him and danger is increased.



It seems to me to be but commonsense that a very simple solution to this problem is to require all motor vehicles to be equipped with a rear window electric wiper, just as all cars have for their windshields.

These two suggestions I made regarding the spaceometer and rear-window wipers should be considered by all manufacturers and should be required by law. I wanted to utilize this opportunity to advance these ideas which I deem meritorious.

Improvements in motor vehicle design should center on protection for drivers and passengers. Much has been done in recent years; and since the investigations by the committee were conducted at the plants of the manufacturers, such safety features as seat belts, padded instrument panels, backup lights, outside rearview mirrors, dual-speed windshield wipers and washers, padded sun visors, and improved penetration-resistant windshield glass have been made standard equipment on most cars.

In addition, an energy-absorbing steering column and dual braking system will be standard equipment on all General Motors 1967 cars. The Ford Motor Co. and Chrysler Motors also merit our thanks for their efforts toward making the motor vehicles they manufacture safer. But very much more could still be done to assure a far greater level of safety.

The National Safety Council has stated that tire failures accounted for 10 percent of all highway fatalities in 1964. Almost all new cars sold today come equipped with 2-ply tires "with a 4-ply rating." The Federal Trade Commission recently held public hearings for 3 days on the problem of tire safety.

It seems that from these hearings one can draw the following conclusions: (1) There are no national safety standards for tires; (2) ply ratings have no definite meaning within the industry; and (3) there are no labeling requirements for tires. Here is certainly an important area that needs clarification and the establishment of definite standards.

Although something has been done by the individual States to achieve uniformity in motor vehicle legislation regarding standards for roads, highways, signals, and signs, still much more is required. Electric signal lights, road signs, and safety standards should be the same in all States so that when the operators of motor vehicles cross a State line, there should be no question in their minds as to the meaning and intent of the signal or sign. Visual factors that distract or mislead the driver's eye, signals that draw the eye the wrong way, must be corrected and proper standards set by law.

Licensing of drivers varies remarkably from State to State. In most States, drivers' licenses are renewed automatically upon the payment of the renewal fee. Once a driver obtains a license, he can usually drive for a lifetime with little interference. Driver licensing is a source of revenue rather than safety control in most States.

There should be a discontinuance of licensing renewals by mail. A hodgepodge of procedures and regulations regarding licensing and license revocations exists from State to State with no uniformity even attempted. Strict uniform licensing procedures should be adopted.

Improper driving of one kind or another contributes to most accidents. It is the failure of the driver to understand and practice good driving habits and suitable judgment that leads to most of the serious accidents. Driver education programs should be required and estab-

lished with adequate financing by local, State, and Federal governments to provide the instructional tools, such as qualified and certified teachers, textbooks, and audiovisual aids. Responsibility for such driver education, as well as for accident prevention, should be divided and shared by these three levels of authority.

In regard to safer motor vehicles, it seems obvious that the individual States cannot legislate meaningful and effective measures. Neither can States assure the presence of properly licensed drivers on their roads, nor can they assure uniform highways, signals, and traffic signs unless there are proper and adequate national standards.

We are one Nation, not 50 separate ones. Travel from State to State is easy and is taken as a matter of fact; hence, the urgent need for Federal legislation.

In this statement, I not only urged the favorable consideration of the bill I introduced—H.R. 13348—but also utilized this opportunity to present to this committee some thoughts regarding safety on the highway.

Briefly, H.R. 13348 is divided into three main titles: Title I relates to "Motor Vehicle Safety Standards"; title II concerns itself with "Traffic Accident and Injury Research and Test Facility"; and title III relates to "Highway Safety."

I sincerely feel that this bill will greatly aid our achieving the goal we all seek; namely, safer drivers, safer motor vehicles, and safer roads. Human life is far too precious to neglect this important objective.

Thank you.

The CHAIRMAN. Thank you, Congressman Friedel, for that enlightening statement. You have made some points in your statement that the committee can well consider.

I would like to say to the committee at this time, before we have comments or questions, that we will strictly adhere to the 5-minute rule in questioning or interrogating any of our witnesses.

Are there any comments or questions of Congressman Friedel?

Mr. Springer.

Mr. SPRINGER. I would like to say to my distinguished colleague, who has been chairman of the Subcommittee on Transportation and Aviation, who has great knowledge of the subject, how much I appreciate his comments. I appreciate his statements very much this morning.

Mr. FRIEDEL. Thank you.

The CHAIRMAN. Are there any other questions or comments?

Mr. CUNNINGHAM. Mr. Chairman, I want to commend our distinguished colleague for his observations. As I said in an earlier meeting, I spent 6 years professionally, full time, in the field of traffic safety and accident prevention. He brings out many of the things that are important.

Sir, you mentioned three factors—the driver, the motor vehicle, and the road. In what order would you place those three as major causes of traffic accidents?

Mr. FRIEDEL. I wouldn't want to single any one out. I think all three are needed. There is no question that we need uniformity in signs on the roads. Whether that should be the priority, I don't know. The manufacturers are making great strides, but I feel that a



lot of known safety devices should be standard equipment rather than optional. Whether that should come first, I don't know.

As to the driver, there is no question about it that there are a lot of good people, but once they get behind the wheel, they lose all sense of reasoning.

What is the priority, I don't know, but I know all three are needed. Two of the things we can do and the driver will have to correct himself.

Mr. CUNNINGHAM. You stated you had spent a lot of time on this, and have considerable knowledge, and I am sure that is so. You didn't mention the courts. You know we have the three E's in this field—education, enforcement, and engineering. You didn't touch on the the courts, which is the weakest link of the three. Have you any view on that?

Mr. FRIEDEL. That is something that this committee, I think, does not have jurisdiction over, over the courts. We find some courts very, very efficient and stringent, and we find some courts are very liberal and do not go as far as they should, but I don't feel that we could do anything about that other than education.

Mr. CUNNINGHAM. I agree with you but when you mentioned the driver, the motor vehicle, and the road, this all involves accidents which usually end up in the courts. I thought you might make some reference to that, to at least state that we do not get very good enforcement through the judiciary.

Mr. FRIEDEL. I am trying to keep as far away as I can from States rights. That is a jurisdiction that I would leave to the States, as far as the courts are concerned. I wouldn't want to make any comment on that.

Mr. CUNNINGHAM. Because of the gentleman's statement of his experience in this field, I am wondering if he could supply the committee with the number of fatalities due to fire accidents, child safety accidents, home safety accidents, and those in industrial plants. Do you have those figures?

Mr. FRIEDEL. No, I don't have those figures. We can get the figures from industry, but there is no headquarters to keep all traffic accidents. There is no one central bureau. That is one of the things that ought to be worked out so that we would have them and know what the steps are.

Mr. CUNNINGHAM. Fatalities in these other fields are quite considerable, as the gentleman knows.

I would conclude, Mr. Chairman, by saying that we do need much more light on this subject instead of the headline-seeking heat that was generated over in the other body. I will pursue that later.

The CHAIRMAN. Thank you, Mr. Friedel.

Mr. FRIEDEL. Thank you, Mr. Chairman.

The CHAIRMAN. At this time we will hear from the Representatives of the Automobile Manufacturers Association: Mr. John S. Bugas, vice president of the Ford Motor Co.; Mr. Bernard A. Chapman, executive vice president of the American Motors Corp.; Mr. Harry Chesebrough, the vice president of the Chrysler Corp., and Mr. George Russell, executive vice president, General Motors Corp.

STATEMENT ON BEHALF OF THE AUTOMOBILE MANUFACTURERS ASSOCIATION AS PRESENTED BY JOHN S. BUGAS (SPOKESMAN), VICE PRESIDENT, FORD MOTOR CO.; BERNARD A. CHAPMAN, EXECUTIVE VICE PRESIDENT, AMERICAN MOTORS CORP.; HARRY CHESEBROUGH, VICE PRESIDENT, CHRYSLER CORP.; AND GEORGE RUSSELL, EXECUTIVE VICE PRESIDENT, GENERAL MOTORS CORP.

The CHAIRMAN. I understand, Mr. Bugas, you are the spokesman chosen by this group today; is that right?

Mr. BUGAS. I am afraid so, sir.

The CHAIRMAN. We are glad to have you.

At this time you may proceed with your testimony.

Mr. BUGAS. Mr. Chairman, I am reminded of a matter that I think I should bring to your attention that I hope does not affect my qualifications to speak today. I listened very carefully to Congressman Friedel, and at one stage he mentioned his view that drivers licenses should not be mailed, that you should not be able to get them by mail.

With this I most certainly and heartily agree. However, as I heard him, I reached into my pocket and discovered that my driver's license expires today.

The CHAIRMAN. It shows you are just human like the rest of us.

Mr. BUGAS. Gentlemen, for those of you who find it convenient to following reading by a witness with your own script before you, I might call your attention to the fact that I shall speak from what is termed a "condensation of a statement" rather than the full statement which is before you. You, perhaps, have both. But if you wish to follow precisely as I read, you should look at the statement that is termed "condensation."

Mr. Chairman and members of the Committee on Interstate and Foreign Commerce of the House of Representatives, my name is John S. Bugas. I am a vice president of Ford Motor Co. Because safety legislation affects all manufacturers uniformly, it was decided that an industry statement would be most appropriate. For that reason, I am speaking today as chairman of the Safety Administrative Committee of the Automobile Manufacturers Association.

With me are my associates on that committee: Mr. Bernard A. Chapman, executive vice president of American Motors Corp.; Mr. Harry E. Chesebrough, vice president of Chrysler Corp.; and Mr. George Russell, executive vice president of General Motors Corp.

We are pleased to have the opportunity to present the views of the automobile manufacturers on the traffic safety problem. We propose to limit our comments to H.R. 13228, the Traffic Safety Act of 1966, introduced by the chairman of the committee.

My oral statement today will be a condensation of the more comprehensive statement we have filed with the committee.

We in the automobile industry are deeply concerned about the number of accidents, injuries, and deaths on the Nation's highways. We agree that further constructive action must be taken in all fields to make highway travel safer.

We recognize that vehicle design is an important part of any comprehensive national traffic safety effort. While the safety standards of American automobiles have improved significantly over the years,



the present traffic accident problem requires that the pace of achievement be further accelerated. The automobile companies are devoting extensive efforts toward this goal.

We believe that the Federal Government must make a major contribution to a more effective nationwide effort to improve traffic safety. Both the President's special message to the Congress and the two related bills in the House of Representatives properly recognize that gains in traffic safety require improvements in all areas of the problem—the car, the road, the driver, and law enforcement. The message and the bills also give proper recognition to the need for better knowledge in order to hasten progress in each of these areas. And they recognize that all establishments—including the Federal Government, State governments, and private industry—have a responsibility.

For all these reasons, we strongly endorse the objectives of the proposed legislation and its broad approach which includes all areas of the problem.

Our statement will offer recommendations for changes we believe can be helpful in strengthening the approach and achieving the objectives.

Since our testimony before the appropriate Senate committees on April 5 and 14, we have continued our study of how legislation can best contribute to improving vehicle safety, an objective we all share.

We have reexamined the problems we find in title I of the administration bill, H.R. 13228, and we have carefully weighed the objections that have been raised to our own proposals.

As a result of this interchange of views, we have come to the point of view that we will outline for you today. We now believe that automotive safety can effectively be improved within the basic structure of title I of H.R. 13228, with the ultimate authority and duty residing in the Federal Government to set vehicle safety performance standards, if the bill is amended to emphasize the importance of bringing both the States and the automotive industry into the standardmaking process and to provide appropriate guidelines and procedures.

These amendments would involve no delay in the development and establishment of national safety standards.

We have also done our best to limit the changes we believe are needed in the bill.

We urge only the adoption of reasonable amendments designed to assure State and industry participation in the standard-setting process and to assure fair standard-setting procedures and criteria, a full opportunity for judicial review, and an enforcement system under which those who act in good faith and with due care are not punished, while the penalty for others is appropriate to the degree of blame that can be fairly charged to the person proceeded against.

Finally, while the uncertainty of antitrust interpretations in this area continues to give us concern, we believe we can make progress within the framework of the present antitrust laws if the final bill explicitly recognizes the need for manufacturers to cooperate reasonably with one another in areas related to the limited purposes of developing and evaluating improved vehicle safety characteristics, formulating proposed minimum safety performance standards for adoption by the Federal Government and the States, and complying with those standards until legally binding standards are issued.

Later in this statement we set forth these recommended changes of title I in greater detail.

#### THE TRAFFIC SAFETY PROBLEM IN PERSPECTIVE

At the outset, we believe it is important to put all of the factors relating to traffic safety in proper perspective.

The major blame for traffic accidents is often placed on the driver, or on the vehicle, or on the highway.

The truth is that most accidents involve a variety of causes and we must neither overemphasize nor neglect any of them.

Although further research is urgently needed to determine the best ways of preventing traffic accidents and injuries, a great deal of knowledge is now available and should be used more effectively.

##### *The highway*

One good example of how available information is being used to reduce accidents is a Federal-State program, already underway, to correct high accident locations on highways.

Other kinds of highway improvements could also save many lives. For example, available evidence strongly suggests that if it were possible to replace two-lane main rural roads by four-lane divided highways, the result could be a saving of about 10,000 lives per year. Any action in this direction would be productive. Removing roadside obstacles and improving grading along the edge of main rural roads could save thousands of lives per year.

Federal Highway Administrator Rex M. Whitton has stated that the design standards for the Interstate System "are responsible for saving an estimated 3,500 lives this year (1965), and are expected to save 8,000 lives a year after the entire 41,000-mile network is completed."

Of course, the various kinds of highway improvements we have mentioned would have overlapping benefits so that the total lifesaving potential would be something less than the sum of the figures we have mentioned.

##### *The driver*

Variations in motor vehicle fatality rates among the States indicate that many lives could be saved through improvement in the area of driver training and licensing, highway law enforcement, and other activities under State jurisdiction. These variations are partly attributable to urban-rural differences in driving conditions and medical facilities, but fatality rates vary as much as 40 percent even among States of similar urbanization.

For example, rural mileage accounts for between 70 and 80 percent of total mileage in all three of the northern New England States. Yet, the 1965 fatality rates per hundred million vehicle-miles in New Hampshire and Maine were 4.6 and 4.8, respectively, and 8.2 in neighboring Vermont.

The reasons for such differences between the performance of comparable States should be investigated intensively. Experience and available evidence suggest that among the most important factors are the quality of driver education, the administration of driver licensing and improvement programs, and traffic laws and enforcement procedures.



Several recent studies have shown that a definite relationship exists between high blood alcohol level and the occurrence of traffic accidents. Recent studies in California and Michigan indicate that 55 percent of the drivers involved in fatal accidents had been drinking.

These studies have been limited in scope but a growing body of data suggests that drinking drivers may play a much larger role in traffic accidents than was previously thought. It also suggests that drivers must be made more fully aware of their own responsibilities than they now seem to be.

### *The vehicle*

These few examples demonstrate that additional improvements in highways and drivers could bring substantial reductions in the traffic accident toll.

One other area in which available knowledge demonstrates significant potential for reducing traffic accidents is vehicle maintenance. More than half the cars in use in this country today are at least 5 years old and older cars have substantially higher accident rates than newer cars. Yet only 20 States and the District of Columbia now require periodic vehicle inspection. Records from these States show that about half of the cars on the road have deficiencies in one or more safety-related items. Periodic vehicle inspection could bring an immediate reduction in accidents.

We recognize, of course, that further advances in vehicle design can also make an important contribution. Unfortunately, it still is not known how many additional lives could be saved or to what degree injuries could be reduced through further vehicle design changes, and much additional research needs to be done in this area.

We believe it is important to recognize that all of the advances that can be made in vehicle safety design may represent a small share of the total potential for improving traffic safety. Whatever this share may be, it cannot be achieved overnight because of the length of time that previously built cars will remain in use. The benefits of each improvement in vehicle safety design will be felt to an increasing degree over a number of years.

Nothing we have said here diminishes one iota the industry's determination to accelerate our progress in vehicle safety design, both to help prevent accidents and to reduce the extent of injuries when an accident does occur. We assure you that we are working intensively on this important task.

We should also like to emphasize that our current automobiles do provide a high level of safety if—and this is very important—if the occupants take full advantage of the protection built into our cars. Let us give you just a few examples.

There is general agreement that a passenger is far safer if he remains within the protective confines of the passenger compartment. Data from the automotive crash injury research program at Cornell show that a person is much safer if he is not ejected from the car in a rollover accident.

Two components of the automobile that contribute directly to the retention of occupants are seat belts and doors.

A recent study by two University of Michigan scientists, financed by the U.S. Public Health Service, discloses that 40 percent of the

fatalities they investigated in Washtenaw County, Mich., during the past 4 years could have been prevented if seat belts had been used.

Projected nationally, this indicates that universal use of seat belts would have saved 40 percent of the 31,500 passenger car deaths last year—or 12,600 lives.

With respect to the seat belt matter, Mr. Chairman, may I deviate from the written script for just a moment?

Last evening as we were having a final discussion of our testimony, a representative of our Washington office handed me a release on auto safety with a Washington dateline. The release concerned seat belts, and I feel it is so critical and so important that I must, with your permission, sir, interject a statement on this. The announcement began:

Auto critic Ralph Nader today accused the automobile industry of selling more than 2 million deluxe seat belts that were actually booby traps for the driver.

And so on.

I will not belabor you with the rest of the announcement because I think you perhaps have read it. But I will file it, if you wish, for the record.

We had our engineers and our other people, both in my own company and in the other companies, try to determine what was the background of this very sensational announcement that, in effect, tended to make the industry look as if we were not interested in safety, and almost acting fraudulently.

I made a statement to the press last night, as did General Motors, since we were the ones who were directly concerned. I stated that as far as Ford Motor Co. is concerned. Mr. Nader's charges are completely without foundation. The pushbutton belts that we sell meet standards that are published by the Department of Commerce and the Society of Automotive Engineers. We have received no reports of accidents involving malfunctioning of these belts, and we have found no need to change the belt or the buckle design.

General Motors Corp. has issued a similar denial, stating that Mr. Nader's charge is without foundation, and that field reports on the pushbutton seat belts indicate this feature is outstanding.

Allegations that the pushbutton seat belt is a boobytrap or is unsafe in any way are ridiculous, sir, and without foundation. We made this belt available beginning with our 1966 models—I am speaking only for my own company—as a deluxe option after many months of testing in car crashes, by organized independent laboratories, and at Ford Motor Co. proving grounds and laboratory facilities.

These tests proved beyond any doubt the reliability and the effectiveness of the pushbutton belt. We have found through field experience that the belt is highly favored by customers, so much so that we plan to install the pushbutton belt as standard equipment beginning with the 1967 model introduction.

The excellent functional design of this belt permits greater ease of operation and encourages—this is extremely important—encourages greater use of the belt by the driver and the occupants.

We have just demonstrated by the research that I quoted in my prepared testimony the great part that seat belts can play in preventing fatalities and injuries in accidents if they are used.



One of the virtues of this pushbutton belt is that, according to our information, it encourages the use of the belts more than the other designs do. The parlor trick of opening the belt by rapping it across the knee, that was mentioned in the release, was well known to us before the introduction of the belt.

The conditions under which this trick is done (and it is a trick) are entirely unrelated to the conditions existing during actual car crashes. Under dynamic sled tests and car-to-car and barrier crashes conducted by our company, there has not been one single instance of belt buckle opening.

There are over 10 million pushbutton belts in use today, with no reports of accidents involving malfunction of the belts. We are continually making product improvements by redesigning every component of the vehicle, including the seat belts. Therefore, it is not unlikely that changes may be made in seat belt design when safety improvements can be made.

We cannot understand why such a statement—if safety is the true motivation rather than publicity—should be made on this particular item.

I wanted to offer this for the record because it seemed so appropriate at this point in my statement.

Major advances by automobile manufacturers during the past 10 years have significantly increased the extent to which car doors stay closed during accidents. Unfortunately, many people do not lock their car doors from the inside—and so fail to take full advantage of improvements in doors and related components.

We recognize that improvements in some of the areas we have mentioned are a long-term assignment. But it is important, particularly in those areas having the greatest immediate potential for reducing the accident toll, that expanded efforts be undertaken quickly.

#### VEHICLE SAFETY STANDARDS

Because this committee is considering whether there is a need for Federal standards for vehicle safety, it is important to review the past and present role of standards in the progressive improvement of the safety of our vehicles.

Standards related to safety go back to the earliest days of our industry. They have constantly been added to and improved as new technology has made it possible to build safer cars. They exist in great variety, and they come from many sources, including Federal and State agencies. Standards related to safety are given constant attention in our industry, and they have played a major role in improving the safety of our products.

Technical societies, such as the American Society for Testing and Materials (1902), Society of Automotive Engineers (1905), American Standards Association (1918), and many others have played a vital role for many years in establishing standards that apply to virtually every part of the vehicle. Important standards related to automotive safety have also been adopted by State governments in their vehicle registration requirements. Each automobile company has many standards in use every day.

Good brakes are an especially important element in vehicle safety.

The extent of quality checks on brakes is illustrated by the fact that our industry road tests 2 million brakes and inspects 35 million brake parts each year. Industrywide advances in brake technology, reflected in progressive upgrading of brake safety standards, have resulted in steady improvement in brake systems over the years.

#### THE PROCESS OF PRODUCT IMPROVEMENT

To understand fully the importance of standards in our business, it is necessary to outline briefly the many steps involved in the complex process of design and development that lead up to the actual manufacture of an improved product. Although some new designs can be introduced fairly quickly, introduction of a major new item generally requires close coordination of a wide variety of activities over a long period of time. The only way we can operate our businesses efficiently is to work with standards developed far enough in advance of the volume production stage so that the entire process can go forward in an orderly manner.

During the development process, a new design must be tested experimentally in the laboratory, with as many different modifications as may be necessary to reach established standards of performance and safety.

Even the best design, or the most advanced concept, is valueless if it cannot be reproduced efficiently in quantity to a high standard of quality. In the early development stages the design engineers must call in the working specialists from the foundries, machine shops and stamping plants, and the technicians in tooling, metallurgy, heat treatment, and all the other arts involved in modern production. All of them contribute to the final product and to its ultimate safe performance.

Rarely can one component be changed without requiring a corresponding modification in one or more additional parts or assemblies. Consequently, this whole process must be repeated for each of the related components.

It is important to emphasize that we cannot offer our customers untried equipment items no matter how widely it is claimed that they would contribute to safety. With the exception of simple, minor items, all new designs must go through the meticulous procedures we have outlined before we can include them in production models.

A good example of the time required for a development program is a new energy-absorbing steering column being introduced on some 1967 models. Preliminary studies of this new column mechanism had progressed sufficiently so that the first design concepts could be tested about 6 years ago. Testing of many design proposals—both in laboratory and proving ground tests—and subsequent modifications and retesting were carried on until late in 1965 when final approval was given for tooling—about 6 years after the original tests.

Although some people are inclined to think of vehicle safety in terms of a relatively few items that can be added to a vehicle, the safety of a car depends fundamentally on the function and operation of almost every one of its 14,000 individual parts—and on how these parts work together to produce safe, reliable, vehicle performance and passenger protection.



That is why the entire process of product improvement is permeated by our own existing standards related to safety. The evolutionary improvement of these standards is an integral part of product improvement. Safety-related standards determine whether new designs are acceptable. And, in turn, improved designs, materials, and technology lead to the upgrading of our standards.

The various types of standards we have been discussing are far more comprehensive and detailed than the performance standards for vehicle safety that seem to be contemplated by title I.

Nevertheless, in order to be effective, Federal standards would necessarily have to intervene, in some continuing manner, in this hand-in-hand evolution of vehicle design and industry standards.

It is, therefore, essential that Federal standards evolve in close harmony with improvements in vehicle design and industry standards.

It is, therefore, essential that Federal standards evolve in close harmony with improvements in vehicle design and industry standards. Static Federal standards, delays in modifying Federal standards to accommodate design improvements, or Federal standards that were drawn without due regard for valid industry practices and standards would all be harmful.

We shall return to these problems later in our statement. At this point, all we wish to suggest is that the imposition of Federal standards generates extensive problems, and that the development of Federal standards that would not have harmful side effects, though unintended, would be no simple matter. In spite of these problems, as we have stated, we favor a strong role for the Federal Government in the development of vehicle safety performance. However, because of these problems, we want to emphasize the great importance of the procedures and criteria for establishing governmental standards. The standards-making mechanism must be devised with great care if the standards are to do more good than harm.

#### RESEARCH AND TESTING FACILITIES

In contemplating construction of research and testing facilities, this committee should be aware of the facilities and resources available in the auto industry.

Before a car is ready for proving ground testing, a tremendous amount of development and testing must be accomplished in research and engineering centers maintained by the car, truck, and accessory divisions and by corporate staffs of the four motor car companies.

The industry's proving grounds contain 19,000 acres of land, 218 miles of private road systems, and buildings with 1,113,000 square feet of laboratories, shops, and offices.

Research and engineering centers maintained by the four motor car companies involve additional buildings with more than 13 million square feet of floor space. The staffs at these proving grounds and other facilities total more than 45,000 men and women. Several major additions to these facilities are currently under construction by individual companies.

It is impossible to say precisely how much of the space and how many of the man-hours at the proving grounds, research laboratories, and engineering facilities are devoted exclusively to safety. Person-

nel at the proving grounds and research and engineering centers are concerned with the many facets of reliability, durability, structural soundness, metallurgy, environmental factors, and vehicle occupants protection. In one way or another, all of this effort is related to safety.

But the final test of components and systems is through actual road testing at the companies' proving grounds and test facilities and public roads. During 1965, such road testing by the motor vehicle manufacturers totaled more than 75 million miles.

These extensive facilities and the wide variety of advanced equipment make it possible for industry scientists and engineers to conduct and accelerate test programs to an extent undreamed of even a decade ago.

We invite the members of this committee to come to the Detroit area and see for yourselves some of the work that is going on in our laboratories, proving grounds, and engineering facilities, and learn firsthand about the thousands of skilled personnel required to conduct these activities.

#### INCREASED TOTAL SAFETY EFFORTS OF INDUSTRY

Recent growth in the public's awareness of the nature and seriousness of the traffic safety problem has been reflected in the Congress, the administration, the press, and in increasing public acceptance of the need for improvements in all areas of traffic safety.

The automobile companies—individually and as an industry—have responded to the increased interest and need of the American public. A stronger industrywide effort began last July with the formation within the Automobile Manufacturers Association of a President's Safety Committee and reporting to it, a Safety Administrative Committee. Among the important actions of this group have been a grant of \$10 million to the University of Michigan for the establishment of a Highway Safety Research Institute, and another grant to the Cornell Aeronautical Laboratory for a 3-year program of on-the-scene and followup accident investigations.

In continuation of efforts over many years to encourage driver education, the automobile companies in the 1965 school year alone will spend more than \$9 million, and the activity will involve the loan by dealers of 22,000 cars.

A number of special safety features have recently been made standard equipment on all U.S.-built cars. These include such items as outside rearview mirrors, backup lights, electric windshield wipers and windshield washers, padded instrument panels and visors, and seat belts. Some of these items have been standard on many cars for a number of years. In 1964, automobile companies began installing front seat belts on all cars. After the other items mentioned above were specified by the General Services Administration for 1967 model Government procurement, they were incorporated as standard equipment on all cars in the 1966 model year. Another significant safety advance incorporated in all 1966 cars is a new windshield with about twice the resistance to penetration of the previous windshield. Also being incorporated on most 1966 U.S.-built cars are shoulder belts anchorages for the front seat.



Two major additional improvements have already been announced for 1967 models of U.S.-built cars. These are dual master cylinder brakes and improved energy-absorbing steering column and steering wheel assemblies.

We believe that these and other actions taken by the industry during the past year demonstrate our determination to make an increased contribution to overall traffic safety.

#### SPECIFIC COMMENTS ON THE PROPOSED LEGISLATION

Now let us turn to the specific provisions of the proposed Traffic Safety Act of 1966. We shall review each of the three titles in turn.

We shall begin our detailed consideration of the bill with comments on title II and title III of H.R. 13228.

##### *Title II—Traffic accident and injury research and test facilities*

We strongly support title II, with one important amendment. As we have already observed, better information and analysis are badly needed to maximize progress in traffic safety. In our judgment, meeting this need will require that the Federal Government play a major role in traffic accident and injury research.

However, because extensive research and testing facilities, personnel and experience already exist in our industry and elsewhere, we recommend that a provision be added to the bill directing the Secretary to utilize the services, research, and testing facilities of public and competent private agencies to the maximum extent practicable.

We also wish to comment on the kinds of research that we believe should be emphasized by the Federal Government.

Federal leadership is badly needed to stimulate the development of a broad systems research approach to the overall problem of traffic safety. Such an approach would recognize that the problem has many complex elements, including the driver, the highway, enforcement, and the vehicle. It would be designed to collect available information about the interrelationships among these elements and provide a framework that would make it possible to tie together diverse kinds of data. The knowledge gained from such an analysis is essential to determine the most promising points of attack on the problem, and to develop the most effective solutions.

To pursue such a program will require much more and better data than are now available. Although more knowledge is needed on all aspects of the problem, the best research data now available are in the area of vehicle design and testing. Among the areas in which better information is most urgently needed are the following:

1. There is a serious deficiency in basic accident data. Present methods of reporting accidents vary greatly in different localities. As a result, there are not consistent and meaningful data on accidents, much less on contributing causes. Standardized and improved methods of reporting accidents and collecting accident data are essential to provide useful data for scientific analysis.

2. There is also a need for more information on the number of miles driven and the circumstances under which they are driven. Such information would show how much driving is done by persons of different ages, in different localities, in urban and rural areas and under

different road and weather conditions. Together with better accident data, this would provide a basis for more meaningful measures of accident probability in various circumstances.

3. There are other critical research needs in the area of driver behavior, driver education, driver licensing, and enforcement. These are major keys to driver improvement. Federal research is needed to provide the basis for better programs to keep incompetent drivers off the roads, deter reckless driving, and effectively train new drivers.

#### *Title III—Highway safety*

Title III has our enthusiastic support. We have already stated our conviction that it is important that research, development and other programs for traffic safety include all the items listed in the proposed section 403: “\* \* \* vehicle, highway and driver characteristics, accident investigations, communications, emergency medical care, and transportation of the injured.”

We agree that the National Driver Register Service should be maintained by the Secretary and expanded to include most of the serious cases in which licenses are withheld or withdrawn. And we hope that its usage will extend to include all States as quickly as possible.

In view of the analysis we presented earlier, we believe that the title III provisions to encourage and support such State programs will lead to substantial highway safety gains.

Title III also represents the most desirable partnership between the Federal and State Governments in the field of traffic safety; that is, a role of leadership by the Federal Government in research activities together with Federal participation in and financial support of State safety programs.

However, we recommend that title III be amended to strengthen the Federal-State role in traffic safety.

Last year the Congress established the principle of Federal leadership in State safety programs by enacting section 135 of title 23, United States Code, a section that had its inception in the Baldwin amendment passed by the House. This section calls upon each State to establish “a highway safety program approved by the Secretary of Commerce.” As enacted, however, the Baldwin amendment included no incentives to encourage the States to establish approved programs.

As it now stands, title III would add some force to the Federal leadership role by authorizing Federal sharing in the cost of State traffic safety programs. It would give some further support by directing the Secretary, in approving programs for projects on the Federal-aid highway systems to give priority to projects incorporating “improved standards and features with safety benefits.”

In our judgment, these provisions are excellent. But we suggest that Congress might wish to consider even stronger incentives for the States to establish traffic safety programs approved by the Secretary.

For example, the funds authorized in title III to aid State traffic safety programs could be restricted more explicitly to programs approved by the Secretary in accordance with standards he has developed. In addition to Federal aid for individual traffic safety programs conducted by the States, special incentive grants could be pro-



vided for States that develop all-inclusive programs, approved by the Secretary, covering all important aspects of traffic safety.

We believe that these changes in title III would provide a more effective way of strengthening State traffic safety programs, of securing a desirable degree of uniformity in State programs, and of encouraging the States to adopt sound policies based on the findings of expanded research activities.

#### *Title I—Motor vehicle safety standards*

Our suggested improvements in title I relate to the importance of encouraging industry initiative and cooperation in the formulation of standards for adoption by the Government, the importance of inviting the States to participate in the process of framing standards, and the importance of fair procedures and reasonable criteria in the standardmaking process.

So that you may understand the reasons for these suggestions, let us first describe the pervasive and far-reaching impact that legally binding standards will have on the industry's efforts to develop and manufacture better automobiles, and the extensive activities of the State Governments in setting and enforcing vehicle standards.

#### *Impact on the industry*

Standards related to safety are an important part of the standards to which each company designs and manufactures its products as a matter of good business practice, over and above any legal requirements. Each company, as we pointed out earlier, has hundreds of standards and specifications relating to vehicle safety. The automobile companies have also worked together and with the States in developing standards for lighting, brakes, brake fluids, glass and seat belts.

Three characteristics of automobile manufacturing make it highly vulnerable to the setting of minimum safety performance standards that are legally binding on all manufacturers. These characteristics make it a matter of grave concern that the standards set are formulated fairly, after due consideration of all pertinent information, with proper regard for the present state of the engineering and manufacturing arts and with reasonable balancing of the relative costs and benefits.

First, because of the complexity of our products, the process of technological change in major components requires long periods of research and development and preparation for manufacture. Second, the product has thousands of parts and they are highly interdependent. A change in any one part may require changes in hundreds of other parts. As we have emphasized, vehicle safety is not just a matter of adding equipment; it is intimately bound up with the total design of vehicles. Third, automobile manufacturing is a mass-production activity. If a change must be made in a model currently in production, this could involve not only substantial additional expense, but also a slowdown, if not a complete halt, in production, with resulting unemployment.

Another hazard is that of retarding research and development. Suppose, for example, it were known that the Government was considering a performance standard for the energy-absorbing character-

istics of front-end structure on a passenger car—that is, standards specifying the manner in which front-end structure should collapse or otherwise deform under impact.

What would be the effect of this knowledge on any given company's research and development program for, say, an improved front-end suspension? The answer, of course, is that the risks inherent in such research and development programs would be greatly increased. On top of the normal risks inherent in lengthy and expensive programs, there would now be added the additional, overwhelming risk that the Government might issue standards for front-end construction that would rule out adoption of the new suspension under development, even though the new suspension might improve safety by making the vehicle more stable.

A suspension research group working as part of an engineering team can and does take into account known changes in structural requirements, including safety requirements, as they affect suspensions; further, it can and does take into account the evolutionary process of change in standards for other related components. But research and development on a particular component would be subjected to paralyzing uncertainty if requirements might be laid down without adequate knowledge of, or regard for, the total effect on the vehicle.

The setting of product standards by an administrative agency has a way of taking an extended period of time despite the efforts of all concerned to get on with the job. As this committee knows, the Food and Drug Administration, for example, has been setting standards for foods for the past three decades. On the average, several years elapse between the time a standard is first proposed and the time that it is ultimately adopted.

The mere pendency of a vehicle performance standard preceding could retard the progress of research and development. If a manufacturer failed to anticipate correctly the direction of future performance standards, he could waste a whole engineering program. Knowing this, he might well be more cautious and selective in undertaking new research and development programs. Improvement would be retarded over a period of time not only in the product but also in manufacturing processes—since a safety standard might affect manufacturing processes as well as product design.

The management of research and engineering in our industry is one of the most important and difficult tasks in our economy. Productivity increases in any industry and in the economy at large depend heavily on the successful management of technological progress. The broad powers provided by title I must therefore be exercised with full industry cooperation and under suitable guidelines and procedures in order to speed up the regulatory process and to minimize any adverse impact on product improvement in the automobile industry.

In our industry there is a constant struggle to introduce improvements in the vehicle and at the same time to reduce cost. The gains in productivity that have made it possible for our industry to pay high wages and, at the same time, to reduce the price of our products, have depended and will continue to depend upon our success in this effort. Although wages in the automobile industry have continued to rise faster than most other wages, our prices have come down. From 1959



to 1965 (prior to the excise tax cut effective on May 15), the Bureau of Labor Statistics index of retail new car prices declined 3.1 percent, while the overall Consumer Price Index increased 8 percent.

You have a chart submitted which illustrates this. (See chart A, p. 266.)

Slower productivity growth in the automobile industry would have adverse effects on a large segment of the total economy. Businesses related to the automobile industry are located in every part of the country.

One job in seven in our total economy relates to highway transportation. And 1 in 6 businesses is involved with highway transportation. Motor vehicle manufacturers alone have 479 plants or distribution facilities in 35 different States. Independent parts manufacturers also are widely distributed throughout the Nation. Automobile demand also has been an important source of jobs in many other industries. Over one-fifth of the steel consumed in this country each year is used in motor vehicles, and the consumption of many other materials is heavily dependent on automobile demand, as reflected in our chart. (See chart B, p. 267.)

The automobile industry could be seriously weakened as a source of increased employment and higher incomes in a broad area of the economy if the growth of productivity in the industry were retarded. This is another reason why guidelines and procedural safeguards are needed to improve title I, and why it is so important to encourage the industry itself to take the initiative and to cooperate in the formulation of standards.

Ill-considered or misaken regulation, even if later rescinded, could add unnecessary cost or slow the process of development which leads to safer cars as well as to lower cost and greater efficiency. A serious regulatory mistake could affect the jobs and incomes of the many persons who are dependent on automobile production and sales.

#### *The role of the States*

The States have been actively involved in setting vehicle safety performance standards for many years.

There are more than 1,000 individual laws and regulations, augmented by a great body of approval procedures administered by the States, relating directly to vehicle safety features such as defrosters, headlamps, taillamps, directional signals, reflectors, backup lights, brake lines, braking performance, mufflers, mirrors, windshield wipers and washers, seat belts, steering mechanisms, and safety glass, among others.

One of the first areas in which States undertook to improve standards to protect the public was headlighting. State regulations in this area have been in effect since the early 1920's. Later, in cooperation with State motor vehicle administrators, auto industry and lighting engineers developed a new uniform and interchangeable type of headlamp which we now know as the sealed-beam. State lighting standards were developed to require the improved lighting that engineering had made possible.

Over the years, as driving speeds have increased, and industry technology has improved, State officials have continued to upgrade their

standards accordingly. In 1957 a new dual (four-lamp) headlighting system was developed which provided better forward visibility. Subsequently, the two-headlamp system was improved to meet the same standards. Since the advent of the improved headlamps, State regulations have outlawed sale of the earlier types of headlamps for replacement purposes.

The development of safety glazing standards was also accomplished by the States. The first laminated safety glass was installed in American-manufactured cars in about 1928. As the technical problems associated with its manufacture and durability were overcome, all manufacturers began to install safety glass, first in windshields and then in side windows as well. Early State laws required replacement of broken glass in cars with safety glass. To define minimum standards, in 1938 an American Standards Association code on automotive safety glass was developed. Revised State laws based on this code followed. Today, by law in all States, the laminated safety glass used in automobile windshields and the tempered safety glass used in automobile side windows must meet the rigid standards set in the ASA code. This code has been upgraded substantially over the years as new and better vinyl laminates and manufacturing processes have made it feasible.

States have also set standards for seat belts. New York was the first State to legislate on the subject when in 1962 it required the automobile companies to provide anchorage points for seat belts for front seat then rear seats be provided with belts. Minimum specifications for the belts themselves also were established.

The States are constantly updating their vehicle safety standards. Each year important changes are made. In 1965, for example, 17 States and the District of Columbia changed their requirements on brakes. Thirteen States and the District of Columbia amended their requirements on headlamps. Fourteen States updated their tire standards, and 10 States wrote new or amended seat belt requirements.

It would be a serious mistake, we think, to permit the States, which are now writing and administering this great complex of vehicle safety regulations, to be excluded from participating in the development of Federal standards for cars which will be driven in their jurisdictions. Meaningful standards must be derived from experience, and to be viable they must grow out of technological improvements and intimate contact with the problems in question. Moreover, as we shall show, it is only the States that can enforce a standard after the car is sold to its first owner, and throughout the period of its useful life.

#### SUGGESTED IMPROVEMENTS IN TITLE I

In order to assure that uniform, practicable, equitable, and legally binding Federal standards are expeditiously established with full opportunity for industry initiative and cooperation and with the active participation of the States, we propose that title I be improved in the following ways:

1. Federal standards. The Secretary should be directed to establish Federal vehicle safety performance standards to the extent he finds necessary to carry out the purposes of the act under appropriate guidelines and procedures as suggested below. Even where the principal



U.S. manufacturers cooperate to formulate and observe a satisfactory voluntary standard for a major safety characteristic of appropriate concern to the Secretary, we believe the Secretary should establish this voluntary standard as a legally binding Federal standard. The Federal standard is needed to reach all new vehicles sold in the U.S. market, regardless of where they are manufactured or by whom, and in order to assure that the same standard would govern new cars throughout the country. This would not, of course, be either necessary or desirable for the numerous individual standards that each manufacturer observes as a matter of good manufacturing practice, but only for those standards which relate to a major safety characteristic.

2. Industry cooperation. Automobile manufacturers should be authorized to cooperate with one another to develop and adopt improved safety characteristics, and to formulate proposed safety standards for adoption by the States and by the Secretary. They should also be authorized to comply with these proposed standards prior to the time legally binding standards are issued by the proper Government agencies.

As we have said, we believe we can make progress within the framework of the present antitrust laws, so long as our need to cooperate reasonably with one another for these limited purposes is recognized in the bill. Rather than wait for a Government agency to take the initiative, we believe the industry should be encouraged to move forward on its own as rapidly as it can, subject to appropriate Government review and any necessary revision of the standards which the industry has proposed and adopted. The basic engineering knowledge needed to improve cars lies in the industry, not in the Government. If we interpret the attitude of the public and Congress correctly, you want us to get on with the job, and so do we.

3. State cooperation. In formulating Federal standards, the Secretary should be directed to collaborate with State motor vehicle authorities, in an effort to achieve a consensus that will result in Federal and State standards being as uniform and complementary as practicable. An excellent vehicle for such collaboration already exists in the Vehicle Equipment Safety Commission, created by an interstate compact under resolution of Congress passed with the leadership and sponsorship of this committee. Forty-four States are already represented on the Commission. Congress endorsed the participation of the District of Columbia in 1964. The Vehicle Equipment Safety Commission is already authorized to issue vehicle safety standards for adoption by the States, and no change in its present structure would be required.

We believe the Secretary should consider and, if he agrees, adopt as Federal standards any standards established by the VESC. The Secretary would, of course, retain the ultimate authority to adopt standards that differ from the views of the States or to go forward on his own if the States delayed action, but before doing so, he should certainly make reasonable efforts to arrive at a meeting of minds.

It is well to keep in mind that title I applies to a vehicle only up to the time of sale to its first user. Thereafter, and throughout the period when he can be involved in an accident, it would no longer be subject to any Federal standard. It would be subject only to such standards as may be imposed by the States, and to the degree of inspection and

enforcement effort that States are willing and able to make. The car may leave the manufacturer and the dealer with every safety characteristic the Federal standard requires, but after it goes into use who will see to it that the side-view mirror or seat belts remain on the car? Who will take steps to assure that the lights and brakes continue to work in a manner that meets the standard, or that a hot-rod owner does not make some change in suspension, power train, doors or wheels that alters some basic safety characteristics of the original car? Only the States can do this.

It seems obvious that the States can and will do a better job if they are encouraged to adopt for themselves the same safety standards that the Federal Government establishes. It seems equally obvious that the States are more likely to act if they participate as partners in the process of formulating what becomes the Federal standard.

Moreover, the States have a good deal of knowledge and experience to contribute to the formulation of vehicle standards. They have been improving and inspecting the safety of the cars they license for many years. Some State motor vehicle authorities and their staffs do an outstanding job. We believe the Congress and the Secretary will want the benefit of their views in the process of formulating standards, and we think the bill should explicitly so provide.

Title III of the bill specifically includes vehicle safety among the matters on which the Secretary is directed to cooperate with the States. But title I, we believe, should assure the States the opportunity to participate in the setting of vehicle safety performance standards. Vehicle standards cannot be integrated with the standards for other elements of the highway transportation system if vehicle standards are split off and isolated by separate procedures and lines of responsibility.

4. Preemption. Title I, as presently written, declares "null and void" any State law or regulation establishing safety standards for a motor vehicle or item of equipment if a Federal standard is in effect for that vehicle or equipment item. Read literally, this may mean that States are not permitted to have any safety standards at all for cars made under a Federal standard, even though the Federal standard no longer applies after the car is sold to its first user. Alternatively, it could mean that after the car is first sold, the State may impose any standard it chooses, no matter how much it differs from the Federal standard. Either meaning seems undesirable.

Instead, we recommend that Federal standards should preempt only those State standards that differ from Federal standards, and that throughout the useful life of the car each State be permitted and encouraged to apply to it a State standard that is consistent with the Federal standard.

5. Criteria for formulating standards. Title I authorizes the Secretary to establish "appropriate" standards if he decides they are needed to achieve "adequate" motor vehicle safety to protect the public against "unreasonable" traffic risks. These terms—"appropriate," "adequate," and "unreasonable"—are very broad. They provide the Secretary with no guidelines whatever, except to act wisely. How much safety is "adequate"? When does a traffic risk become "unreasonable"? How can any Secretary, let alone the industry or a reviewing court, judge what falls within and without these flexible boundaries?



We fully recognize that the Congress cannot legislate detailed criteria that will cover all future cases. But surely there are some criteria that would be helpful, such as the balancing of costs versus benefits, whether the proposed standard is practicable within the present state of the engineering and manufacturing arts, and whether adequate time is allowed for meeting the new standard in an efficient and economical manner.

We therefore propose that the Congress write general guidelines of this type into the bill as criteria to be followed by industry in proposing, and by the Secretary in adopting Federal standards.

6. Effective date of standards. Title I contains a provision that could have an extremely serious impact on the basic operating practices of our industry. This relates to the requirement that once the Secretary establishes a standard, it cannot be made effective later than 2 years from the date it is issued. In the case of some standards, this 2-year limitation might pose no problem to the industry, but in the case of other standards—those, for example, that require long lead-time changes in the vehicle—a 2-year limitation could impose great hardship for some makes and lines of cars. We recommend that the Secretary be authorized to extend the 2-year maximum term whenever he finds good cause for so doing.

These are our major suggestions for changes in the bill. Several others are discussed more fully in the statement we have filed with the committee and I will touch on them only briefly here.

The first relates to judicial review. Our basic concern with the judicial review provision of the bill is its requirement that the reviewing court affirm if the Secretary's order is supported by "substantial evidence." We suggest in its place the standard this committee has followed many times that the reviewing court judge the Secretary's action on the basis of "a fair evaluation of the entire record."

The next concerns the acts prohibited in the bill. Title I makes it a prohibited act for any person to make or sell any new vehicle that does not meet a Federal standard. We recommend that the procedures in other regulatory statutes be followed, and that only knowing, willful, or careless conduct be made a violation. We further recommend that to protect an innocent dealer, he be exempted if he holds a certificate of compliance with the standards from the manufacturer.

With respect to the proposed penalties in title I, we believe they are too severe in a number of respects. For example, the provision for seizure of substandard vehicles is unnecessarily harsh. We have made certain suggestions that we believe will accomplish the intended purpose and at the same time be more equitable.

On another point, the bill authorizes the Secretary to set standards both to promote safety and to reduce property damage. We suggest that the reference to property damage be deleted, because some measures that might be taken for the purpose of improving safety, such as energy-absorbing structures, could have an adverse effect on property damage to vehicles.

The bill exempts trucks and buses subject to the safety regulations of the ICC, but does not exempt similar trucks and buses, made on the same assembly lines, that may not be subject to ICC regulations because they are sold to customers who are not interstate common or contract carriers. We urge that the bill exempt any heavy truck or

bus that actually meets ICC regulations, whether or not it is legally required to do so.

Finally, we suggest that the bill include a patent provision enabling any manufacturer to use any patent needed to meet a Federal standard, and limiting the patent holder to the collection of reasonable royalties, rather than an injunction.

#### CONCLUSION

The rising toll of highway accidents is an urgent national problem that demands faster progress by all concerned in all aspects of traffic safety, including the development of nationally uniform and legally binding vehicle safety standards.

We favor a strong role for the Federal Government in setting vehicle safety performance standards. We fully support the purposes of title I. We believe that the Federal Government should have the ultimate authority and duty under appropriate guidelines to establish the standards applicable to the manufacture and first sale of the vehicle, and that the States should be encouraged to enact similar standards and enforce them during the vehicle's useful life. We also believe that industry must take the initiative to cooperate in formulating and proposing standards for adoption by the Federal Government and the States. Ways must therefore be found to build a creative partnership among the Federal Government, State governments, and the automobile industry.

The question is not whether the above goals are desirable. The only question is how to meet these desirable goals in the most effective, possible way. We believe that title I can and should be improved by the adoption of the suggestions we have made, so that it provides effective and forceful governmental machinery for setting vehicle safety standards without delay, with the full participation of the States and our industry, and without impairing our ability to turn out the safest and most efficient cars that American engineers and workmen can make.

Along with an improved title I we endorse title II with the amendment we have suggested and favor a strengthened title III so that the Federal Government, working closely with the States, the automobile industry, and other interested parties, can go forward on a broad systems approach, taking into consideration all factors in the traffic safety problem.

Thank you very much for the opportunity to present this statement.  
(Mr. Bugas' full statement follows:)

#### STATEMENT OF THE AUTOMOBILE MANUFACTURERS ASSOCIATION, PRESENTED BY JOHN S. BUGAS, CHAIRMAN, SAFETY ADMINISTRATIVE COMMITTEE

Mr. Chairman and members of the Committee on Interstate and Foreign Commerce of the House of Representatives. My name is John S. Bugas. I am a vice president of Ford Motor Company. Because safety legislation affects all manufacturers uniformly, it was decided that an industry statement would be most appropriate. For that reason, I am speaking today as Chairman of the Safety Administrative Committee of the Automobile Manufacturers Association.

With me are my associates on that Committee—Mr. Bernard A. Chapman, Executive Vice President of American Motors Corporation; Mr. Harry Chesebrough, Vice President of Chrysler Corporation; and Mr. George Russell, Executive Vice President of General Motors Corporation.



We are pleased to have the opportunity to present the views of the automobile manufacturers on the traffic safety problem. We propose to limit our comments to H.R. 13228, the "Traffic Safety Act of 1966," introduced by the chairman of the Committee. Our statement will also outline the past and present programs of the industry in carrying out our responsibility in this field, and will offer recommendations for changes we believe can be helpful in achieving the objectives of the proposed legislation most effectively.

We in the automobile industry are deeply concerned about the number of accidents, injuries and deaths on the nation's highways. We agree that further constructive action must be taken in all fields to make highway travel safer.

We recognize that vehicle design is an important part of any comprehensive national traffic safety effort. While the safety standards of American automobiles have improved significantly over the years, the present traffic accident problem requires that the pace of achievement be further accelerated. The automobile companies are devoting extensive efforts toward this goal.

We believe that the Federal government must make a major contribution to a more effective nationwide effort to improve traffic safety. Both the President's special message to the Congress and the two related bills in the House of Representatives properly recognize that gains in traffic safety require improvements in all areas of the problem—the car, the road, the driver and law enforcement. The message and the bills also give proper recognition to the need for better knowledge in order to hasten progress in each of these areas. And they recognize that all establishments—including the Federal government, state governments and private industry—have a responsibility.

For all these reasons, we strongly endorse the objectives of the proposed legislation and its broad approach which includes all areas of the problem.

Since our testimony before the appropriate Senate committees on April 5 and 14, we have continued our study of how legislation can best contribute to improving vehicle safety, an objective we all share.

We have re-examined the problem we find in Title I of the Administration bill, H.R. 13228, and we have carefully weighed the objections that have been raised to our own proposals.

As a result of this interchange of views, we have come to the point of view that we will outline for you today. We now believe that automotive safety can be effectively be improved within the basic structure of Title I of H.R. 13228, with the ultimate authority and duty residing in the Federal Government to set vehicle safety performance standards, if the bill is amended to emphasize the importance of bringing both the states and the automotive industry into the standard-making process, and to provide appropriate guidelines and procedures.

These amendments would involve no delay in the development and establishment of national safety standards.

We have also done our best to limit the changes we believe are needed in the bill.

We urge only the adoption of reasonable amendments designed to assure state and industry participation in the standard-setting process and to assure fair standard-setting procedures and criteria, a full opportunity for judicial review, and an enforcement system under which those who act in good faith and with due care are not punished, while the penalty for others is appropriate to the degree of blame that can be fairly charged to the person proceeded against.

Finally, while the uncertainty of antitrust interpretations in this area continues to give us concern, we believe we can make progress within the framework of the present antitrust laws if the final bill explicitly recognizes the need for manufacturers to cooperate reasonably with one another in areas related to the limited purposes of developing and evaluating improved vehicle safety characteristics, formulating proposed minimum safety performance standards for adoption by the Federal Government and the states, and complying with those standards until legally binding standards are issued.

Later in this statement we set forth these recommended changes of Title I in greater detail.

#### THE TRAFFIC SAFETY PROBLEM IN PERSPECTIVE

At the outset, we believe it is important to put all of the factors relating to traffic safety in proper perspective.

The major blame for traffic accidents is often placed on the driver, or on the vehicle, or on the highway.

The truth is that most accidents involve a variety of causes, including many different environmental factors. We must neither overemphasize nor neglect any of them.

Although considerable study has been devoted to the causes and prevention of accidents, nobody really knows as much as should be known to make the best decisions. We hope that the expanded Federal research programs in traffic safety proposed in this legislation will bring faster progress in traffic safety by providing a significant increase in the amount of useful information.

Obviously, however, none of those sharing the responsibility for traffic safety can delay action until all the facts are known. A great deal of knowledge is now available and should be used more effectively in reducing traffic accidents, injuries and fatalities.

#### *The highway*

One good example of how available information is being used to reduce accidents is a Federal-state program, already underway, to correct high-accident locations on highways. The importance of this program was recognized by President Johnson when he urged its expansion in his recent message on traffic safety.

Available evidence shows that another way to reduce accidents and save lives would be to increase the rate at which two-lane main rural highways are replaced by four-lane divided rural highways. A 1964 report by the Bureau of Public Roads, entitled "Accidents on Main Rural Highways Related to Speed, Driver, and Vehicle," stated that the death rate on four-lane divided main rural highways over a three-year period averaged less than half the recorded on a representative sample of two-lane main rural highways.

Other data from the National Safety Council and the Bureau of Public Roads show that during 1964 two-lane main rural roads accounted for nearly half of the 435.6 billion miles traveled on rural roads, and for 17,800 traffic accident deaths, or more than a third of the national total.<sup>1</sup> This evidence suggests that if it were possible to replace all two-lane main rural roads by four-lane divided highways the result could be a saving of about 10,000 lives per year. Any action in this direction would be productive.

Still another way in which present knowledge could be used to cut traffic accidents and deaths substantially would be to reduce roadside hazards. "Accident Facts" (published by the National Safety Council) shows that in 1964, 11,900 traffic fatalities occurred on rural roads in ran-off-roadway type of accidents. Studies of data from the Automotive Crash Injury Research project of Cornell Aeronautical Laboratory, Inc., reports of the University of Illinois, and eight years of experience at an automotive company proving ground, indicate that 90 percent of these fatalities could have been prevented if roadside obstructions had been removed and grading improved for a distance of 50 feet from the edge of the road. Even clearing the roadside for 33 feet appears to have the potential of eliminating 80 percent of the fatalities in ran-off-roadway accidents. This would result in saving thousands of lives per year.

The Interstate Highway System combines both of these approaches—multi-lane divided roadways and roadside hazard reduction—along with still other design improvements such as limited access, grade separation and elimination of sharp curves. Federal Highway Administrator Rex M. Whitton has stated that the design standards for the Interstate System "are responsible for saving an estimated 3,500 lives this year (1965), and are expected to save 8,000 lives a year after the entire 41,000-mile network is completed."

Of course, the various kinds of highway improvements we have mentioned would have overlapping benefits so that the total life-saving potential would be something less than the sum of the figures we have mentioned.

#### *The driver*

Present knowledge indicates that another major source of potential reduction in automobile accidents and deaths, in addition to highway improvements, is in the area of improved driver training and licensing, highway law enforcement, and other activities relating to traffic safety under the jurisdiction of the states.

A review of the 1965 records of individual states, which have essentially the same mix of vehicles by type and age, shows that fatality rates per hundred

<sup>1</sup> The annual traffic death toll includes, among others, accidents involving pedestrians, farm tractors, trucks, motorcycles and buses—not just passenger cars.



million miles of vehicle travel ranged from 8.2 in Vermont and 7.6 in New Mexico and Idaho down to 2.5 in Rhode Island and 3.2 in Connecticut. We recognize that these differences are partly attributable to urban-rural differences in driving conditions and medical facilities which place rural areas at a disadvantage. But there are wide differences in fatality rates, as much as 40 percent, even between states of similar urbanization.

For example, rural mileage accounts for between 70 and 80 percent of total mileage in all three of the northern New England states. Yet, the 1965 fatality rates in New Hampshire and Maine were 4.6 and 4.8, respectively, and, as we have noted, 8.2 in neighboring Vermont.

Such variations in fatality rates among the states indicate that improvement in traffic safety could be achieved by strengthening state traffic safety programs.

The reasons for the differences among the performance of comparable states should be the subject of intensive investigation. Available evidence does not permit us to conduct the necessary analysis but experience suggests that, in addition to adequate and properly designed highways, the following factors are important elements:

1. *Driver education.*—Studies with fleet drivers have shown that accident rates can be cut in half through relatively brief and simple training programs conducted by expert teachers. In spite of the growth of high school driver education programs, only about half of the rising number of eligible students are enrolled in approved courses. Only a few states require completion of such a course before issuing a driver's license to persons under eighteen.

2. *Driver licensing and improvement programs.*—The typical driver licensing procedure ignores many factors vital to the motorist's ability to operate a car safely. For example, some states check vision—others do not. Few states require physical reexamination once a driver gets a license. Differences in licensing administration can have a profound effect on the quality of driver training and are the major factor in determining whether incompetent or irresponsible drivers or those with serious physical impairment are kept off the public highways.

3. *Traffic laws and enforcement procedures.*—The importance and value of good laws tightly and fairly administered are well known and recognized. As James P. Economos, Director of the Traffic Court Program of the American Bar Association has pointed out, the traffic court judge "is the one person in every community that sets the standard of driving performance that every person using its streets and highways must achieve \* \* \*. The judge can make or break any community's traffic safety program."

4. *Alcohol and Traffic Accidents.*—Several recent studies using adequate research techniques have shown that a definite relationship exists between high blood alcohol level and the occurrence of traffic accidents involving vehicles alone or vehicles and pedestrians. Recent studies in California and Michigan indicate that 55 percent of the drivers involved in fatal accidents had been drinking. An eight-year analysis in Florida revealed that two-thirds of the drivers killed in single-vehicle accidents had been drinking.

While these studies have been limited in scope, they and a growing body of data suggest that drinking drivers may play a much larger role in traffic accidents than was previously thought. They also suggest that drivers must be made more fully aware of their own responsibilities than they now seem to be.

#### *The vehicle*

These few examples demonstrate that additional improvements in highways and drivers could bring substantial reductions in the traffic accident toll.

One area in which available knowledge demonstrates significant potential for reducing traffic accidents is vehicle maintenance. Obviously, a vehicle that is not maintained in safe operating condition is a safety hazard. The critical nature of this problem is suggested by the fact that more than half of the cars in use in this country today are at least five years old, and older cars have substantially higher accident rates than newer cars. Yet, only 20 states and the District of Columbia now require periodic vehicle inspection.<sup>2</sup> Records from these states and information derived from voluntary vehicle inspection programs show that about half of the cars on the road have deficiencies in one or more safety-related items. Periodic inspection could bring about an immediate reduction in accidents on our roads and highways.

<sup>2</sup> The recently enacted Kentucky law will go into effect in 1968.

We also recognize, of course, that further advances in vehicle design can also make an important contribution. Unfortunately, it still is not known how many additional lives could be saved or to what degree injuries could be reduced through further vehicle design changes, and much additional research needs to be done in this area.

We also believe it is important to recognize that all of the advances that can be made in vehicle safety design may represent a small share of the total potential for improving traffic safety. Whatever this share may be, it cannot be achieved overnight because of the length of time that previously-built cars will remain in use. The benefits of each improvement in vehicle safety design will be felt to an increasing degree over a number of years.

Nothing that we have said here diminishes one iota the industry's determination to accelerate our progress in vehicle design safety, both to help prevent accidents and to reduce the extent of injuries when an accident does occur. We assure you that we are working very intensively on this important task.

We should also like to emphasize, as we have said before, that our current automobiles do provide a high level of safety if—and this is very important—if the occupants take full advantage of the protection built into our cars.

Let us give you just a few examples.

There is general agreement that a passenger is far safer in virtually all types of accidents if he remains within the protective confines of the passenger compartment. This is most important in roll-over accidents.

B. J. Campbell, assistant director of Automotive Crash Injury Research (ACIR) at the Cornell Aeronautical Laboratory, Inc., reports that a person is three to six times safer if he is not ejected from the car in a roll-over accident. Here are the statistics on which he bases this conclusion.

*Percent of occupants sustaining dangerous or fatal injuries in roll-over accidents*

Speed	Not ejected	Ejected
	Percent	Percent
0 to 20 miles per hour.....	5	15
30 to 50 miles per hour.....	4	23
60 miles per hour and over.....	8	34

Two components of the automobile that contribute directly to the retention of occupants are seat belts and doors.

Seat belts make a major contribution in the reduction of automobile fatalities and injuries. Robert A. Wolf, of ACIR at Cornell, has pointed out that a seat belt performs two vital functions—to retain the passenger within the vehicle and to reduce injuries from striking objects within the car during an accident.

A recent study by two University of Michigan scientists, financed by the U.S. Public Health Service, discloses that 40 percent of the fatalities they investigated in Washtenaw County, Michigan, during the past four years could have been prevented if seat belts had been used. Projected nationally, this indicates that universal use of seat belts would have saved 40 percent of the 31,500 passenger car deaths last year—or 12,600 lives.

Seat belts for both front seat and rear seat passengers have been available as optional equipment for years and are standard equipment on all 1966 model cars. However, in spite of overwhelming evidence of the value of seat belts, it is a tragic fact that the seat belts installed in cars are used less than half of the time, according to the National Safety Council. Therefore a major problem is to find the methods whereby the motoring public can be made aware of the benefits of using seat belts.

With respect to doors, major advances by automobile manufacturers during the past ten years have significantly increased the extent to which car doors stay closed during accidents. This depends, of course, on a number of car components such as latches, hinges, pillars and other structures—all of which work together to keep the doors closed during roll-over or impacts at any angle.

Unfortunately, many people do not lock their car doors from the inside—a simple procedure that would help prevent the doors from being unlatched



in roll-over or side-impact accidents—and so fail to take full advantage of improvements in doors and related components.

This section of our statement has indicated that, although more research in traffic safety is needed, available knowledge points to many things that can be done now to reduce traffic accidents and injuries. We recognize that improvements in some areas are a long-term assignment. But it is important, particularly in those areas having the greatest immediate potential for reducing the accident toll, that expanded efforts be undertaken quickly.

#### VEHICLE STANDARDS RELATED TO SAFETY

Because this Committee is considering whether there is a need for Federal standards for vehicle safety, it is important to review the past and present role of standards in the progressive improvement of the safety of our vehicles.

Standards related to safety go back to the earliest days of our industry. They have constantly been added to and improved as new technology has made it possible to build safer cars. They exist in great variety, and they come from many sources, including Federal and state agencies. Standards related to safety are given constant attention in our industry, and they have played a major role in improving the safety of our products.

Technical societies, such as American Society for Testing and Materials (1902), Society of Automotive Engineers (1905), American Standards Association (1918), and many others have played a vital role for many years in establishing standards that apply to virtually every part of the vehicle. The members of the technical committees of these organizations represent a wide variety of industries, professions, state and national government agencies, technical societies and universities in the United States and Canada. Important standards related to automotive safety have also been adopted by state governments in their vehicle registration requirements.

Each automobile company has many standards in use everyday. One company, for example, has a total of 6,233 standards, 1,932 of which are directly related to vehicle safety. Its product engineering activities are controlled by 1,260 individual standards affecting safety, and another 672 safety-related standards govern process techniques and quality control methods in its manufacturing plants. There are many different kinds of standards—performance, design, materials, process, testing and so on—and all of them are closely interrelated. Most of them are quite different from any performance standards for vehicle safety that might be established by government and we are not in any sense suggesting that government should or would want to issue standards in such number and detail.

Good brakes are an especially important element in vehicle safety, and typically, brakes are governed by individual company standards and specifications that define more than a thousand characteristics. These standards and specifications affect the work of every activity that has any responsibility for brake design or manufacture.

The extent of quality checks on brakes is illustrated by the fact that our industry road tests two million brakes and inspects 35 million brake parts each year. Each of these tests and inspections is governed by detailed standards.

Industry-wide advances in brake technology, reflected in progressive upgrading of brake safety standards, have resulted in steady improvement in brake systems.

Among the major brake system advances over the years have been four-wheel brakes, hydraulic brakes, internally expanding brakes, continuous and significant brake lining improvements, automatic brake adjustment, and sealed hydraulic systems.

In addition to these major advances, brakes have been improved and brake standards have been upgraded in countless ways. For example, brake hose standards have been strengthened by doubling the pressure applied in testing all completed hose assemblies, by lowering cold-test temperature to 65° below zero; and by adding a variety of new tests for durability under adverse conditions.

This very brief review of brake development provides merely a glimpse of the effort that goes into improving the safety of and the safety standards for one part of the car. It also suggests the extent to which standards are part and parcel of car design and manufacture.

## THE PROCESS OF PRODUCT IMPROVEMENT

To understand fully the importance of standards in our business, it is necessary to outline briefly the many steps involved in the complex process of design and development that leads up to the actual manufacture of an improved product. Although some new designs can be introduced fairly quickly, introduction of a major new item generally requires close coordination of a wide variety of activities over a long period of time. The only way we can operate our businesses efficiently is to work with standards developed far enough in advance of the volume production stage so that the entire process can go forward in an orderly manner.

A new design begins as an idea, which must be evaluated carefully before it goes to the drafting board, where various ideas are explored and the most feasible concepts are selected for development. Then the design must be tested experimentally in the laboratory, with as many different modifications as may be necessary to reach established standards of performance and safety.

Even the best design, or the most advanced concept, is valueless if it cannot be reproduced efficiently in quantity to a high standard of quality. In the early development stages, the design engineers must call in the working specialists from the foundries, machine shops and stamping plants, and the technicians in tooling, metallurgy, heat treatment and all the other arts involved in modern production. All of them contribute to the final product and to its ultimate safe performance.

During the course of its development, the component is repeatedly tested through a cycle exceeding its normal life expectancy. Once it passes this testing procedure, its reliability, durability and safety are given exhaustive testing again as part of total vehicle operation under actual road conditions.

Rarely can one component be changed without requiring a corresponding modification in one or more additional parts or assemblies. Consequently, this whole process must be repeated for each of the related components.

Once a group of interrelated new designs has been proven through this exhaustive procedure, the designs must then be tooled and parts manufactured in pilot production.

When pilot production has begun, the parts are again tested thoroughly—individually and collectively as a part of the vehicle. If their performance again meets our standards, they are ready for volume production; if not, the tooling, pilot production and testing cycle is repeated until they do meet those standards.

After volume production begins, the vehicle and all of its component parts are subjected to further exhaustive testing at our proving grounds as final assurance that the design is being manufactured properly to our quality standards.

It is important to emphasize that we cannot offer our customers untried equipment items no matter how widely it is claimed that they would contribute to safety. With the exception of simple, minor items, all new designs must go through the meticulous procedures we have outlined before we can include them in production models.

A good example of the time required for a development program is a new energy-absorbing steering column being introduced on some 1967 models. Preliminary studies of this new column mechanism had progressed sufficiently so that the first design concepts could be tested about six years ago. Testing of many design proposals—both in laboratory and proving ground tests—and subsequent modifications and retesting were carried on until late in 1965 when final approval was given for tooling—about six years after the original tests.

The total dimensions of the problems we have been discussing are indicated by the fact that our industry today offers 364 different passenger car models and a wide variety of optional equipment to meet the diverse transportation needs and desires of the American people.

Each year, moreover, the industry brings out a new lineup of models. The new models include not just styling changes but also a large number of mechanical advances—both of which are important to the vitality of our business. Most of the design modifications in all of the new models must go through some variation of the development and testing process we have described.

Developing, testing and tooling are only the preliminary stages for actual manufacture of new products. In the interest of saving time, we shall not attempt even to outline the problem of incorporating new designs and new tooling into the continuing flow of operations in manufacturing establishments that, altogether, produce 40,000 cars a day in 199 plants in 23 states. In addition,



thousands of other business concerns supply the industry with a variety of materials, parts and services. This vital outside supply line has to be integrated into our system and all of the materials must meet the same quality requirements as our own production.

The lengthy and enormously complicated process of product improvement is permeated by our own existing standards related to safety—in one company's case, nearly 2,000 of them, as we have mentioned. The evolutionary improvement of these standards is an integral part of product improvement. Safety-related standards determine whether new designs are acceptable. And, in turn, improved designs, materials and technology lead to the upgrading of our standards.

The various types of standards we have been discussing are far more comprehensive and detailed than the performance standards for vehicle safety that seem to be contemplated by Title I. Nevertheless, in order to be effective, Federal standards would necessarily have to intervene, in some continuing manner, in this hand-in-hand evolution of vehicle design and industry vehicle standards. It is therefore essential that Federal standards evolve in close harmony with improvements in vehicle design and industry standards. Static Federal standards, delays in modifying Federal standards to accommodate design improvements, or Federal standards that were drawn without due regard for valid industry practices and standards would all be harmful.

We shall return to these problems later in our statement. At this point, all we wish to suggest is that the imposition of Federal standards generates extensive problems, and that the development of Federal standards that would not have harmful side effects, though unintended, would be no simple matter. In spite of these problems, as we have stated, we favor a strong role for the Federal government in the development of vehicle safety performance standards. However, because of these problems, we want to emphasize the great importance of the procedures and criteria for establishing governmental standards. The standards-making mechanism must be devised with great care if the standards are to do more good than harm.

#### RESEARCH AND TESTING FACILITIES

In contemplating construction of research and testing facilities, this Committee should be aware of the facilities and resources available in the auto industry.

The industry's total research and testing effort has been significantly expanded in recent years. In addition, more advanced and specialized equipment has become necessary as the industry's products have grown in number and complexity. Today's research and testing facilities are the product of a large investment, growing scientific and engineering knowledge and advances in the state of the automotive arts.

The industry's proving grounds date back to 1924. Today, the four major domestic automobile producers operate eight proving grounds and special test facilities, with locations ranging from Michigan to Arizona and mountain facilities from Colorado to Pennsylvania. These facilities are located in varying climates and terrains to enable our engineers to test the effect of different environments. Additional road testing is done over the roughest terrain and in extreme climates—even outside the United States—to make sure our cars are completely tested before they reach the marketplace.

The industry's proving grounds contain 19,000 acres of land, 218 miles of private road systems, and buildings with 1,113,000 square feet of laboratories, shops and offices.

Before a car is ready for proving ground testing, however, a tremendous amount of development and testing must be accomplished in research and engineering centers maintained by the car, truck and accessory divisions and by corporate staffs of the four motor car companies. These facilities involve additional buildings with more than 13 million square feet of floor space. The staffs at these proving grounds and other facilities total more than 45,000 men and women.

It is impossible to say precisely how much of the space and manhours at the proving grounds, research laboratories and engineering facilities are devoted exclusively to safety. However, in one way or another, all of this effort is related to safety. Personnel at the proving grounds and research and engineering centers are concerned with the many facets of reliability, durability, structural soundness, metallurgy, environmental factors and vehicle occupant protection. All these add up to safety.

In its safety work, the industry utilizes the latest scientific equipment or develops its own equipment when none is available to do the required task. For many years, the automobile companies have conducted extensive year-round programs of actual crash testing of vehicles. The impact sled represents another advance in safety testing. It allows engineers to run a number of tests indoors each day on one or more design concepts and to test these components in simulated crashes from virtually any direction. Highly developed instrumentation used in these real and simulated crashes provides valuable information on safety characteristics of components and helps to guide future research.

Advanced photographic equipment has also been adapted by the automobile industry to record the results of safety testing on automotive components. Techniques have been developed to use space-age telemetry and computer technology to transmit and process data from crash tests with great accuracy and in minutes rather than the hours or days formerly required. These new techniques also provide information never available before.

Safety researchers have developed a wide variety of unusual machines to check durability and reliability of components and systems. A device used to test one type of steering mechanism runs continuously for two weeks to duplicate all movements expected in ten years of normal use. Another subjects a suspension component to cornering loads equivalent to 600,000 miles of the most severe driving conditions. Another machine simulates a stress on steering knuckles equivalent to a car skidding sideways a half million times.

But the final test of components and systems is through actual road testing at the companies' proving grounds and test facilities and public roads. During 1965, such road testing by the motor vehicle manufacturers totaled more than 75 million miles.

The industry has also advanced the development of driver behavior research equipment. An electromechanical testing device called a Driveometer, which has been used to investigate such areas as driver fatigue, driver education methods and driver testing, has been coupled with a modern magnetic tape recording system. This allows data to be fed directly into computers, which reduces data processing time sharply.

The automobile manufacturers are continuing to add to their vehicle safety facilities. For example, under construction by individual companies are: (1) a safety test engineering laboratory with 88,000 square feet of space that will be a coordinating center for all of that company's safety activities and will permit it to double its impact sled testing; (2) a tire test facility to study and analyze experimental and production tires; (3) a vehicle dynamics evaluation facility—a huge paved area equivalent in size to 59 football fields on which all conceivable types of maneuvering, handling and emergency situation tests may be run at turnpike speeds; (4) an automobile safety center to be devoted exclusively to vehicle safety research, engineering, and testing.

These extensive facilities and the wide variety of advanced equipment make it possible for industry scientists and engineers to conduct and accelerate test programs to an extent undreamed of even a decade ago. In addition to the industry programs, similar work is being done by many of our suppliers.

We invite the members of this Committee to come to the Detroit area and see for yourselves some of the work that is going on in our laboratories, proving grounds and engineering facilities, and learn first hand about the thousands of skilled personnel required to conduct these activities.

#### ADVANCES IN VEHICLE SAFETY

We shall now turn to a brief discussion of what our industry has done and is doing to improve the safety of passenger cars. We shall not discuss our past efforts in detail inasmuch as this information was covered comprehensively before the Senate Subcommittee on Executive Reorganization last summer, and is a matter of public record.

As a result of long-term vehicle safety programs by the automobile companies, today's U.S.-built cars are the safest in our history.

The achievement of the current standards of safety, reliability, durability and quality is the result of an evolving technology and continuing year-after-year improvement in structural strength and overall performance and design features.



Some people are inclined to think of vehicle safety in terms of a relatively few items that can be added to a vehicle. Actually, the safety of a car depends fundamentally on the function and operation of almost every part—and how these components work together to produce safe, reliable vehicle performance and passenger protection. There are approximately 14,000 individual parts in an automobile and virtually all of them have some relationship to safety.

A number of special safety features have recently been made standard equipment on all U.S.-built cars. These include such items as outside rear view mirror, backup lights, electric windshield wipers and windshield washers, padded instrument panels and visors and seat belts. Some of these items have been standard on many cars for a number of years. In 1964, automobile companies began installing front seat belts on all cars. After the other items mentioned above were specified by the General Services Administration for 1967 model government procurement, they were incorporated as standard equipment on all cars in the 1966 model year. Another significant safety advance incorporated in all 1966 cars is a new windshield with about twice the resistance to penetration of the previous windshield. Also being incorporated on most 1966 U.S.-built cars are shoulder belt anchorages for the front seat.

Features such as these provide significant additional safety benefits. But it is the sum total of performance and protective ability—and the overall reliability, durability and quality of all the parts—that constitute the composite safety of a vehicle. These are increasingly vital factors because of the hazards posed by breakdown or poor operation of automobiles in modern-day travel.

We want to emphasize, therefore, that the safety of our vehicles has been increased not only by special safety features, but also by significant improvements over the years in virtually all operational and structural components.

To illustrate this point, we want to list some examples of car components and characteristics, directly related to safety and reliability, that have been improved in recent years.

- Stronger rear seat cushion retention.
- Reduced glare.
- Improved windshield wipers with greater wiped area.
- Heavy-duty windshield wiper motor.
- Positive "burn-out" indication for turn signal lamp.
- Improved brake drums.
- Improved corrosion-resistant brake lines.
- Hermetically sealed brake master cylinder.
- Increased tire durability.
- Shatter-resistant inside rear view mirror.
- Longer-life lamp bulbs.
- Amber front turn signals.
- Improved riding and handling characteristics.
- Extended-life lubrication of chassis components.
- Lower center of gravity.
- Standard bumper heights.
- Standard gearshift quadrant.
- Solid tempered side window safety glass.
- Self-adjusting brakes.
- Wide brake pedal.
- Improved safety door latches.
- High strength front and rear belt anchorages.
- Child-guard safety locks for rear doors.

Two major additional improvements have already been announced for 1967 models of U.S.-built cars. These are dual master cylinder brakes and improved energy-absorbing steering column and steering wheel assemblies.

Information from a number of outside organizations is used in our vehicle design programs to help direct our efforts to the most important safety design

improvements. Among such organizations are the Automotive Crash Injury Research Program of the Cornell Aeronautical Laboratory and the Wayne State University Bio-Mechanics Research Studies. The automobile industry has helped support these and other research institutions since the early fifties. Data from these programs have been used—in conjunction with our own studies and the advice of consultants—to indicate high priority areas for further safety development.

Data from the Cornell crash studies contributed to a number of specific safety design improvements, including:

Continuing improvements in door latches to reduce the possibility of ejection.

The thicker-laminate windshield installed on all 1966 cars.

Improved energy-absorbing steering column and wheel assemblies scheduled for 1967 models.

#### INCREASED TOTAL SAFETY EFFORTS OF INDUSTRY

Recent growth in the public's awareness of the nature and seriousness of the traffic safety problem has been reflected in the Congress, the Administration, the press and in increasing public acceptance of the need for improvements in all areas of traffic safety.

The automobile companies—individually and as an industry—have responded to the increased interest and need of the American public. To illustrate the greatly expanded efforts of the automotive industry to advance overall traffic safety, we should like to tell you of some of the more important developments in this field during the past year.

A stronger industry-wide effort in overall traffic safety began last July with the formation of a Presidents Safety Committee within the Automobile Manufacturers Association. Simultaneously, a Safety Administrative Committee was established which reports directly to the presidents of the four automobile companies. Working directly under the Safety Administrative Committee are a number of technical subcommittees.

Among the important actions of this group has been an expansion of the AMA's traditional program of support for research into accident causes and prevention.

The largest new industry grant was one of \$10 million to the University of Michigan for the establishment of a Highway Safety Research Institute to study all areas of traffic safety and their interrelationships. This included a \$4 million grant by Ford and General Motors for construction of facilities, and a \$6 million grant from all AMA members to help underwrite the operational costs of the Institute for five years.

The AMA also contracted with Arthur D. Little, Inc., for a nine-month, \$150,000 study of the "state of the art"—an inventory and analysis of past and current traffic safety research. This will be a valuable guide to areas that require greater emphasis in future studies to determine causes and ways of preventing traffic accidents, deaths and injuries.

The AMA has just approved a grant of \$800,000 to the Cornell Aeronautical Laboratory for a three-year program of on-the-scene and follow-up accident investigations. Another similar project involving \$310,000 with a leading West Coast traffic research organization will be approved shortly. In addition, the AMA is currently considering requests for increased financial support of accident research programs at a number of other institutions.

The industry also is continuing its long-term substantial support of leading national organizations working in the cause of a better road and traffic environment. These include the Automotive Safety Foundation, the National Highway Users Conference, the National Safety Council and the Auto Industries Highway Safety Committee.

The automobile companies have also expanded their efforts to promote safe driving and have increased their expenditures for high school driver education programs. The automobile manufacturers spent \$11½ million during 1965 on activities promoting safe driving, including films, booklets and advertising in all media. For 1966, it is estimated that expenditures for this purpose will be about \$15 million.

The automobile companies have spent nearly \$24 million since 1955 in allowances to dealers who lent 120,000 cars to high schools for use in driver train-



ing programs. These activities have been stepped up in recent years, and, for the 1965 school year alone, it is estimated that they will involve the loan by dealers of 22,000 cars and the expenditure of over \$9 million by the automobile companies.

We believe that these actions taken by the industry during the past year—as well as other increased efforts by individual companies and the industry as a whole—demonstrate our determination to make an increased contribution to overall traffic safety.

#### SPECIFIC COMMENTS ON THE PROPOSED LEGISLATION

Now let us turn to the specific provisions of the proposed Traffic Safety Act of 1966. We shall review each of the three titles in turn.

We shall begin our detailed consideration of the bill with comments on Title II and Title III of H.R. 13228.

##### *Title II—Traffic accident and injury research and test facilities*

We strongly support Title II, with one important amendment. As we have already observed, better information and analysis are badly needed to maximize progress in traffic safety. In our judgment, meeting this need will require that the Federal government play a major role in traffic accident and injury research.

However, because extensive research and testing facilities, personnel and experience already exist in our industry and elsewhere, we recommend that a provision be added to the bill directing the Secretary to utilize the services, research and testing facilities of public and competent private agencies to the maximum extent practicable.

We also wish to comment on the kinds of research that we believe should be emphasized by the Federal government.

Federal leadership is badly needed to stimulate the development of a broad systems research approach to the overall problem of traffic safety. Such an approach would recognize that the problem has many complex elements, including the driver, the highway, enforcement and the vehicle. It would be designed to collect available information about the interrelationships among these elements and provide a framework that would make it possible to tie together diverse kinds of data. The knowledge gained from such an analysis is essential to determine the most promising points of attack on the problem, and to develop the most effective solutions.

To pursue such a program will require much more and better data than are now available. Although more knowledge is needed on all aspects of the problem, the best research data now available are in the area of vehicle design and testing. Among the areas in which better information is most urgently needed are the following:

1. There is a serious deficiency in basic accident data. Present methods of reporting accidents vary greatly in different localities. As a result, there are not consistent and meaningful data on accidents, much less on contributing causes. Standardized and improved methods of reporting accidents and collecting accident data are essential to provide useful data for scientific analysis.

2. There is also a need for more information on the number of miles driven and the circumstances under which they are driven. Such information would show how much driving is done by persons of different ages, in different localities, in urban and rural areas and under different road and weather conditions. Together with better accident data, this would provide a basis for more meaningful measures of accident probability in various circumstances.

3. There are other critical research needs in the area of driver behavior, driver education, driver licensing, and enforcement. These are major keys to driver improvement. Federal research is needed to provide the basis for better programs to keep incompetent drivers off the roads, deter reckless driving, and effectively train new drivers.

##### *Title III—Highway safety*

Title III has our enthusiastic support. We have already stated our conviction that it is important that research, development and other programs for traffic safety include all the items listed in the proposed Section 403: "... vehicle, highway and driver characteristics, accident investigations, communications, emergency medical care, and transportation of the injured."

We agree that the National Driver Register Service should be maintained by the Secretary and expanded to include most of the serious cases in which

licenses are withheld or withdrawn. And we hope that it will be expanded to include all states as quickly as possible.

In view of the analysis we presented earlier, we believe that the Title III provisions to encourage and support such state programs will lead to substantial highway safety gains.

Title III also represents the most desirable partnership between the Federal government and state governments in the field of traffic safety; that is, a role of leadership by the Federal government in research activities together with Federal participation in and financial support of state safety programs.

However, we recommend that Title III be amended to strengthen the Federal-state role in traffic safety.

Last year the Congress established the principle of Federal leadership in state highway safety programs by enacting Section 135 of Title 23, United States Code, a section that had its inception in the Baldwin Amendment passed by the House. This section calls upon each state to establish "a highway safety program approved by the Secretary of Commerce." As enacted, however, the Baldwin Amendment included no incentives to encourage the states to establish approved programs.

As it now stands, Title III would add some force to the Federal leadership role by authorizing Federal sharing in the cost of state traffic safety programs. It would give some further support by directing the secretary, in approving programs for projects on the Federal-aid highway systems, to give priority to projects incorporating "improved standards and features with safety benefits."

In our judgment, these provisions are excellent. But we suggest that Congress might wish to consider even stronger incentives to the states to establish traffic safety programs approved by the Secretary.

For example, the funds authorized in Title III to aid state traffic safety programs could be restricted more explicitly to programs approved by the Secretary in accordance with standards he has developed. In addition to Federal aid for individual traffic safety programs conducted by the states, special incentive grants could be provided for states that develop all-inclusive programs, approved by the Secretary, covering all important aspects of traffic safety.

We believe that these changes in Title III would provide a more effective way of strengthening state traffic safety programs, of securing a desirable degree of uniformity in state programs, and of encouraging the states to adopt sound policies based on the findings of expanded research activities.

#### *Title I—Motor vehicle safety standards*

Our suggested improvements in Title I relate to the importance of encouraging industry initiative and cooperation in the formulation of standards for adoption by the government, the importance of inviting the states to participate in the process of framing standards, and the importance of fair procedures and reasonable criteria in the standard-making process.

So that you may understand the reasons for these suggestions, let us first describe the pervasive and far-reaching impact that legally binding standards will have on the industry's efforts to develop and manufacture better automobiles, and the extensive activities of the state governments in setting and enforcing vehicle standards.

#### *Impact on the industry*

Standards related to safety are an important part of the standards to which each company designs and manufactures its products as a matter of good business practice, over and above any legal requirements. Each company, as we pointed out earlier, has hundreds of standards and specifications relating to vehicle safety. The automobile companies have also worked together and with the states in developing standards for lighting, brakes, brake fluids, glass and seat belts.

Three characteristics of automobile manufacturing make it highly vulnerable to the setting of minimum safety performance standards that are legally binding on all manufacturers. These characteristics make it a matter of grave concern that the standards set are formulated fairly, after due consideration of all pertinent information, with proper regard for the present state of the engineering and manufacturing arts and with reasonable balancing of the relative costs and benefits.



First, because of the complexity of our products, the process of technological change in major components requires long periods of research and development and preparation for manufacture. Second, the product has thousands of parts and they are highly interdependent. A change in any one part may require changes in hundreds of other parts. As we have emphasized, vehicle safety is not just a matter of adding equipment; it is intimately bound up with the total design of vehicles. Third, automobile manufacturing is a mass production activity. If a change must be made in a model currently in production, this could involve not only substantial additional expense, but also a slowdown, if not a complete halt, in production, with resulting unemployment.

Another hazard is that of retarding research and development. Suppose, for example, it were known that the Government was considering a performance standard for the energy-absorbing characteristics of front-end structure on a passenger car—that is, standards specifying the manner in which front-end structure should collapse or otherwise deform under impact. What would be the effect of this knowledge of any given company's research and development program for, say, an improved front-end suspension? The answer, of course, is that the risks inherent in such research and development programs would be greatly increased. On top of the normal risks inherent in lengthy and expensive programs, there would now be added the additional, overwhelming risk that the Government might issue standards for front-end construction that would rule out adoption of the new suspension under development, even though the new suspension might improve safety by making the vehicle more stable.

A suspension research group working as part of an engineering team can and does take into account known changes in structural requirements, including safety requirements, as they affect suspensions; further, it can and does take into account the evolutionary process of change in standards for other related components. But research and development on a particular component would be subjected to paralyzing uncertainty if requirements might be laid down without adequate knowledge of, or regard for, the total effect on the vehicle.

The setting of product standards by an administrative agency has a way of taking an extended period of time despite the efforts of all concerned to get on with the job. As this Committee knows, the Food and Drug Administration, for example, has been setting standards for foods for the past three decades. On the average, several years elapse between the time a standard is first proposed and the time that it is ultimately adopted.

The mere pendency of a vehicle performance standard proceeding could retard the progress of research and development. If a manufacturer failed to anticipate correctly the direction of future performance standards, he could waste a whole engineering program. Knowing this, he might well be more cautious and selective in undertaking new research and development programs. Improvement would be retarded over a period of time not only in the product but also in manufacturing processes—since a safety standard might affect manufacturing processes as well as product design.

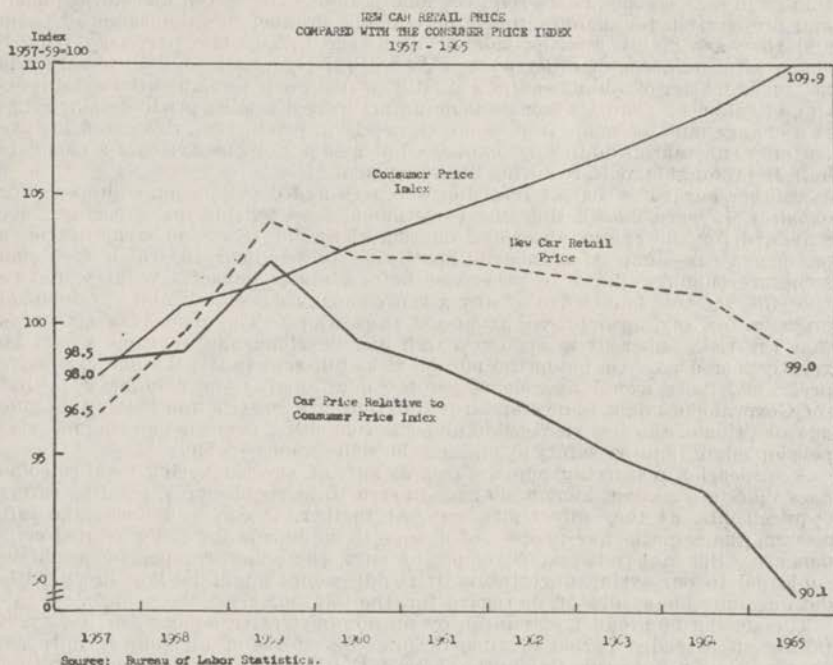
The management of research and engineering in our industry is one of the most important and difficult tasks in our economy. Productivity increases in any industry and in the economy at large depend heavily on the successful management of technological progress. The broad powers provided by Title I must therefore be exercised with full industry cooperation and under suitable guidelines and procedures in order to speed up the regulatory process and to minimize any adverse impact on product improvement in the automobile industry.

In our industry there is a constant struggle to introduce improvements in the vehicle and at the same time to reduce cost. The gains in productivity that have made it possible for our industry to pay high wages and, at the same time, to reduce the price of our products, have depended and will continue to depend upon our success in this effort. Although wages in the automobile industry have continued to rise faster than most other wages, our prices have come down. From 1959 to 1965 (prior to the excise tax cut effective on May 15), the Bureau of Labor Statistics index of retail new car prices declined 3.1 percent, while the overall Consumer Price Index increased 8 percent (see chart).

Slower productivity growth in the automobile industry would have adverse effects on a large segment of the total economy. Businesses related to the automobile industry are located in every part of the country.

One job in seven in our total economy relates to highway transportation.

CHART A



And one in six businesses is involved with highway transportation. Motor vehicle manufacturers alone have 479 plants or distribution facilities in 35 different states. Independent parts manufacturers also are widely distributed throughout the nation. Automobile demand also has been an important source of jobs in many other industries. Over one-fifth of the steel consumed in this country each year is used in motor vehicles, and the consumption of many other materials is heavily dependent on automobile demand (see chart).

The automobile industry could be seriously weakened as a source of increased employment and higher incomes in a broad area of the economy if the growth of productivity in the industry were retarded. This is another reason why guidelines and procedural safeguards are needed to improve Title I, and why it is so important to encourage the industry itself to take the initiative and to cooperate in the formulation of standards.

Ill-considered or mistaken regulation, even if later rescinded, could add unnecessary cost or slow the process of development which leads to safer cars as well as to lower cost and greater efficiency. A serious regulatory mistake could effect the jobs and incomes of the many persons who are dependent on automobile production and sales.

#### *The role of the States*

The states have been actively involved in setting vehicle safety performance standards for many years.

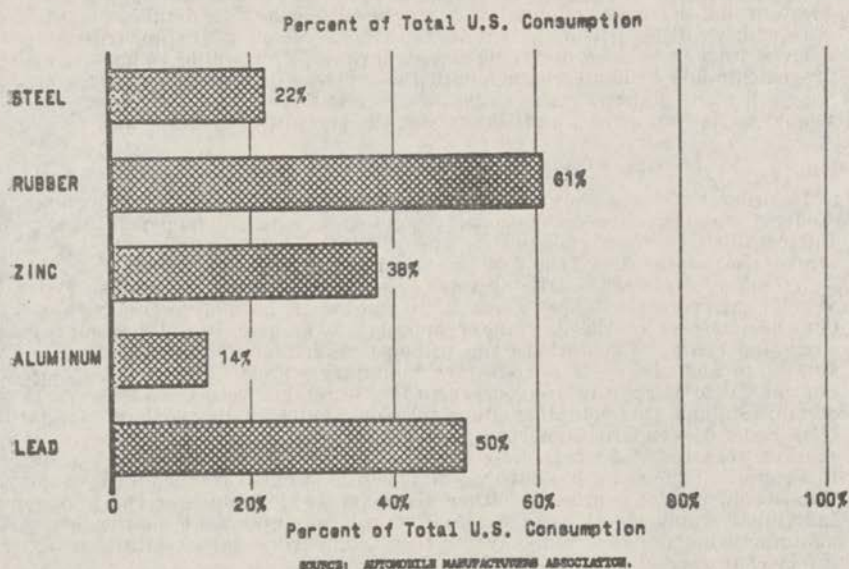
There are more than 1,000 individual laws and regulations, augmented by a great body of approval procedures administered by the states, relating directly to vehicle safety features such as defrosters, headlamps, tail lamps, directional signals, reflectors, backup lights, brake lines, braking performance, mufflers, mirrors, windshield wipers and washers, seat belts, steering mechanisms and safety glass, among others.

One of the first areas in which states undertook to improve standards to protect the public was headlighting. State regulations in this area have been in effect since the early 1920's. Later, in cooperation with state motor vehicle



CHART B

## AUTOMOTIVE CONSUMPTION OF SELECTED RAW MATERIALS - 1963



administrators, auto industry and lighting engineers developed a new uniform and interchangeable type of headlamp which we now know as the Sealed-Beam. State lighting standards were developed to require the improved lighting that engineering had made possible.

Over the years, as driving speeds have increased, and industry technology has improved, state officials have continued to upgrade their standards accordingly. In 1957 a new dual (four lamp) headlighting system was developed which provided better forward visibility. Subsequently, the two-headlamp system was improved to meet the same standards. Since the advent of the improved headlamps, state regulations have outlawed sale of the earlier types of headlamps for replacement purposes.

The development of safety glazing standards was also accomplished by the states. The first laminated safety glass was installed in American manufactured cars in about 1928. As the technical problems associated with its manufacture and durability were overcome, all manufacturers began to install safety glass, first in windshields and then in side windows as well. Early state laws required replacement of broken glass in cars with safety glass. To define minimum standards, in 1938 an American Standards Association code on automotive safety glass was developed. Revised state laws based on this code followed. Today, by law in all states, the laminated safety glass used in automobile windshields and the tempered safety glass used in automobile side windows must meet the rigid standards set in the ASA code. This code has been upgraded substantially over the years as new and better vinyl laminates and manufacturing processes have made it feasible.

States have also set standards for seat belts. New York was the first state to legislate on the subject when in 1962 it required the automobile companies to provide anchorage points for seat belts for front seat passengers. Later the states required first that front seats and then rear seats be provided with belts. Minimum specifications for the belts themselves also were established.

The states are constantly updating their vehicle safety standards. Each year important changes are made. In 1965 for example, seventeen states and the District of Columbia changed their requirements on brakes. Thirteen states and the District of Columbia amended their requirements on headlamps. Four-

teen states updated their tire standards, and ten states wrote new or amended seat belt requirements.

It would be a serious mistake, we think, to permit the states which are now writing and administering this great complex of vehicle safety regulations, to be excluded from participating in the development of Federal standards for cars which will be driven in their jurisdictions. Meaningful standards must be derived from experience, and to be viable they must grow out of technological improvements and intimate contact with the problems in question. Moreover, as we shall show, it is only the states that can enforce a standard after the car is sold to its first owner, and throughout the period of its useful life.

#### SUGGESTED IMPROVEMENTS IN TITLE I

In order to assure that uniform, practicable, equitable and legally binding Federal standards are expeditiously established, with full opportunity for industry initiative and cooperation and with the active participation of the states, we propose that Title I be improved in the following ways:

1. *Federal Standards.*—The Secretary should be directed to establish Federal vehicle safety performance standards to the extent he finds necessary to carry out the purposes of the Act under appropriate guidelines and procedures as suggested below. Even where the principal U.S. manufacturers cooperate to formulate and observe a satisfactory voluntary standard for a major safety characteristic of appropriate concern to the Secretary, we believe the Secretary should establish this voluntary standard as a legally binding Federal standard. The Federal standard is needed to reach all new vehicles sold in the U.S. market, regardless of where they are manufactured or by whom, and in order to assure that the same standard would govern new cars throughout the country. This would not, of course, be either necessary or desirable for the numerous individual standards that each manufacturer observes as a matter of good manufacturing practice, but only for those standards which relate to a major safety characteristic.

2. *Industry Cooperation.*—Automobile manufacturers should be authorized to cooperate with one another to develop and adopt improved safety characteristics, and to formulate proposed safety standards for adoption by the states and by the Secretary. They should also be authorized to comply with these proposed standards prior to the time legally binding standards are issued by the proper Government agencies.

As we have said, we believe we can make progress within the framework of the present antitrust laws, so long as our need to cooperate reasonably with one another for these limited purposes is recognized in the bill. Rather than wait for a Government agency to take the initiative, we believe the industry should be encouraged to move forward on its own as rapidly as it can, subject to appropriate Government review and any necessary revision of the standards which the industry has proposed and adopted. The basic engineering knowledge needed to improve cars lies in the industry, not in the Government. If we interpret the attitude of the public and Congress correctly, you want us to get on with the job, and so do we.

3. *State Cooperation.*—In formulating Federal standards, the Secretary should be directed to collaborate with state motor vehicle authorities, in an effort to achieve a consensus that will result in Federal and state standards being as uniform and complementary as practicable. An excellent vehicle for such collaboration already exists in the Vehicle Equipment Safety Commission, created by an Interstate Compact under Resolution of Congress passed with the leadership and sponsorship of this Committee. Forty-four states already are represented on the Commission. Congress endorsed the participation of the District of Columbia in 1964. The Vehicle Equipment Safety Commission is already authorized to issue vehicle safety standards for adoption by the states, and no change in its present structure would be required.

We believe the Secretary should consider and, if he agrees, adopt as Federal standards any standards established by the VESC. The Secretary would of course retain the ultimate authority to adopt standards that differ from the views of the states or to go forward on his own if the states delayed action, but before doing so, he should certainly make reasonable efforts to arrive at a meeting of minds.

It is well to keep in mind that Title I applies to a vehicle only up to the time of sale to its first user. Thereafter, and throughout the period when he can be involved in an accident, it would no longer be subject to any Federal standard.



It would be subject only to such standards as may be imposed by the states, and to the degree of inspection and enforcement effort that states are willing and able to make. The car may leave the manufacturer and the dealer with every safety characteristic the Federal standard requires, but after it goes into use who will see to it that the side view mirror or seat belts remain on the car? Who will take steps to assure that the lights and brakes continue to work, in a manner that meets the standard, or that a hot-rod owner does not make some change in suspension, power train, doors or wheels that alters some basic safety characteristics of the original car? Only the states can do this.

It seems obvious that the states can and will do a better job if they are encouraged to adopt for themselves the same safety standards that the Federal government establishes. It seems equally obvious that the states are more likely to act if they participate as partners in the process of formulating what becomes the Federal standard.

Moreover, the states have a good deal of knowledge and experience to contribute to the formulation of vehicle standards. They have been improving and inspecting the safety of the cars they license for many years. Some state motor vehicle authorities do an outstanding job. We believe the Congress and the Secretary will want the benefit of their views in the process of formulating standards, and we think the bill should explicitly so provide.

Title III of the bill specifically includes vehicle safety among the matters on which the Secretary is directed to cooperate with the states. But Title I, we believe, should assure the states the opportunity to participate in the setting of vehicle safety performance standards. Vehicle standards cannot be integrated with the standards for other elements of the highway transportation system if vehicle standards are split off and isolated by separate procedures and lines of responsibility.

4. *Preemption.*—Title I, as presently written, declares "null and void" any state law or regulation establishing safety standards for a motor vehicle or item of equipment if a Federal standard is in effect for that vehicle or equipment item. Read literally, this may mean that states are not permitted to have any safety standards at all for cars made under a Federal standard, even though the Federal standard no longer applies after the car is sold to its first user. Alternatively, it could mean that after the car is first sold, the state may impose any standard it chooses, no matter how much it differs from the Federal standard. Either meaning seems undesirable.

Instead, we recommend that Federal standards should preempt only those state standards that differ from Federal standards, and that throughout the useful life of the car, each state be permitted and encouraged to apply to it a state standard that is consistent with the Federal standard.

5. *Criteria for Formulating Standards.*—Title I authorizes the Secretary to establish "appropriate" standards if he decides they are needed to achieve "adequate" motor vehicle safety to protect the public against "unreasonable" traffic risks. These terms—"appropriate," "adequate" and "unreasonable," are very broad. They provide the Secretary with no guidelines whatever, except to act wisely. How much safety is "adequate"? When does a traffic risk become "unreasonable"? How can any Secretary, let alone the industry or a reviewing court, judge what falls within and without these flexible boundaries?

We fully recognize that the Congress cannot legislate detailed criteria that will cover all future cases. But surely there are some criteria that would be helpful, such as the balancing of costs versus benefits, whether the proposed standard is practicable within the present state of the engineering and manufacturing arts, and whether adequate time is allowed for meeting the new standard in an efficient and economical manner.

We therefore propose that the Congress write general guidelines of this type into the bill as criteria to be followed by industry in proposing, and by the Secretary in adopting Federal standards.

6. *Effective Date of Standards.*—Title I contains a provision that could have an extremely serious impact on the basic operating practices of our industry. This relates to the requirement that once the Secretary establishes a standard, it cannot be made effective later than two years from the date it is issued. In the case of some standards, this two-year limitation might pose no problem to the industry, but in the case of other standards, (those, for example, that require long lead-time changes in the vehicle), a two-year limitation could impose great hardship for some makes and lines of cars. We recommend that the Secretary be authorized to extend the two-year maximum term whenever he finds good cause for so doing.

7. *Judicial Review.*—Our principal concern with the judicial review provisions of the bill is its requirement that the reviewing court affirm if the Secretary's order is supported by "substantial evidence." We believe this standard unduly narrows the scope of review of agency action permitted in other recent statutes. We suggest instead the standard this Committee has followed many times—that the reviewing court judge the Secretary's action on the basis of "a fair evaluation of the entire record."

8. *Prohibited Acts.*—Title I makes it a prohibited act for any person—manufacturer, dealer, or whoever—to manufacture, sell, offer for sale or deliver any new vehicle that does not meet a Federal standard. Heavy punishments are imposed whether or not the offending person knows or has reason to know that the vehicle does not comply, and regardless of whether he may have taken every known precaution and followed the best engineering and manufacturing practice in order to conform. A person can violate the act even though his conduct is utterly without fault.

Let us give one or two examples. Suppose a manufacturer errs by failing to meet standards, without the knowledge of the dealer who buys the car. Nothing the dealer could have done would have disclosed the defect. Yet the dealer would be guilty of violating the act, and would be subject to civil penalty, seizure of the vehicle and injunction. Or suppose a manufacturer does everything humanly possible to design, build and test an energy-absorbing structure to meet a standard, including the deliberate crashing of a representative sample number to test their effectiveness. He obviously cannot crash them all; yet suppose one or two slip through the best known system of controls and later prove to be below standard. Under Title I, the manufacturer would have violated the act, and be subject to its severe penalties.

To resolve this problem, we recommend that the procedures in other regulatory statutes be followed, and that only knowing, willful, or careless conduct be made a violation. We further recommend that to protect an innocent dealer, he be exempted if he holds a certificate of compliance with standards from the manufacturer, so long as the dealer does not know or have reason to know that the vehicle fails to meet the standards.

9. *Penalties.*—We believe that the proposed penalties are too severe in a number of respects. A civil penalty of \$1000 per substandard vehicle or item of equipment could be entirely out of proportion to the magnitude of the offense or the cost of correction. We note that the tire standard bill currently before this Committee and recently passed by the Senate imposes only a single penalty of \$1000 per violation, rather than \$1000 per tire. For vehicles, we suggest that a penalty of \$1000 per violation, with a ceiling of \$100,000 for any related series of violations, would be entirely adequate to be an effective deterrent.

We also believe that the provision for seizure of substandard vehicles is entirely unnecessary and far too drastic for the magnitude of the offense involved. In the rare case where the Government fears the offending vehicles may be sold to users and become an unreasonable safety hazard, the Government could readily institute injunctive proceedings and obtain temporary restraining orders against sale or use that would be just as effective as a seizure.

As for the injunctive relief provided in the bill, we suggest that, in accordance with the procedure contained in the Food and Drug laws and other statutes, including the license revocation provisions of the Administrative Procedure Act, the Secretary be required to notify the offending person and give him a reasonable opportunity to take corrective measures before injunction proceedings are instituted.

10. *Other Suggestions.*—a. *Property Damage:* The bill authorizes the Secretary to set standards not only to promote safety, but also to reduce property damage resulting from accidents. We see no need for the reference to property damage, and indeed it may introduce confusion into the administration of the law. For example, since impact-absorbing characteristics that promote safety may increase the risk of damage to the car itself, the Secretary would be asked to decide on balance which objective should receive priority.

We think the Secretary and the industry will have problems enough in concentrating on safety, without being distracted by any suggestion that damage to property must be measured on the same scale as human life.

b. *Trucks and Buses:* The bill exempts trucks and buses subject to the safety regulations of the Interstate Commerce Commission, but does not exempt similar trucks and buses made on the same assembly lines, but not subject to ICC regula-



tions because they are sold to customers who are not interstate common or contract carriers. To avoid unnecessary confusion and expense, we urge that the bill exempt any truck over 6,000 lbs. gross vehicle weight, or bus that actually meets ICC regulations, whether or not it is legally required to do so.

c. Patents: We also suggest that the bill include a patent provision, enabling any manufacturer to use any patent needed to meet a Federal standard, and limiting the patent holder to the collection of reasonable royalties, rather than an injunction.

#### CONCLUSION

The rising toll of highway accidents is an urgent national problem that demands faster progress by all concerned in all aspects of traffic safety, including the development of nationally uniform and legally binding vehicle safety standards.

We favor a strong role for the Federal government in setting vehicle safety performance standards. We fully support the purposes of Title I. We believe that the Federal government should have the ultimate authority and duty under appropriate guidelines to establish the standards applicable to the manufacture and first sale of the vehicle, and that the states should be encouraged to enact similar standards and enforce them during the vehicle's useful life. We also believe that industry must take the initiative to cooperate in formulating and proposing standards for adoption by the Federal Government and the states. Ways must therefore be found to build a creative partnership among the Federal Government, state governments and automobile industry.

The question is not whether the above goals are desirable. The only question is how to meet these desirable goals in the most effective possible way. We believe that Title I can and should be improved by the adoption of the suggestions we have made, so that it provides effective and forceful governmental machinery for setting vehicle safety standards without delay, with the full participation of the states and our industry, and without impairing our ability to turn out the safest and most efficient cars that American engineers and workmen can make.

Along with an improved Title I we endorse Title II and favor a strengthened Title III so that the Federal Government, working closely with the states, the automobile industry and other interested parties, can go forward on a broad systems approach, taking into consideration all factors in the traffic safety problem.

Thank you very much for the opportunity to present this statement.

Mr. ROGERS of Texas. Thank you, Mr. Bugas, for a very interesting and competent statement.

Is is planned by the committee to meet at 2 o'clock this afternoon to begin questioning. Time is so short that we do not have time to get into it. However, there is one question, Mr. Bugas, that I would like to ask at this time, and that is the procedures employed by the manufacturers in being sure that when a car leaves your plant it is complete in all details, that it has the right windshield wipers on it, that the screws are all tightened, that there is not some defect in one of the brakes.

Mr. BUGAS. Mr. Chesebrough is an engineer, so may I ask him to answer?

Mr. ROGERS of Texas. Yes.

Mr. CHESEBROUGH. Mr. Rogers, after the vehicle has been developed, tested, and approved, and is ready to be manufactured, we maintain a very extensive and detailed system of quality control procedures throughout the entire manufacturing process. These start in plans manufacturing components, with checks on the receipt of the proper materials, dimensional checks of critical items, and functional checks of subassemblies and assemblies even before they reach the car assembly plants.

Throughout the process of assembling the vehicle there are also many checks made. At the end of the assembly lines still additional checks insure that critical nuts, bolts, cables, clips, wiring, connections, are properly attached.

In addition, cars representing a sampling of production throughout the day are diverted to special bays where still more checks are made. Other vehicles are selected from the day's production and taken on road tests of varying mileages, depending on circumstances.

Finally, to this at intervals throughout the year vehicles are selected from the production plants, taken to our proving grounds, and subjected to very exhaustive and complete mileage checks, generally of 50,000 miles or more per vehicle. These proving ground tests are accelerated to the greatest extent possible, but it takes a while to accumulate 50,000 miles on a vehicle, sometimes as much as 10 to 12 weeks.

Mr. ROGERS of Texas. Where does the responsibility lie if a man is driving around in a car and it starts raining and he has just bought it and he turns on the windshield wipers and one of them is wrong? One is too long and will not work. He has to wait until the rain stops before he can go to some place and spend a couple of hours to get the windshield wiper corrected that should never have come out of the factory.

Is this the factory's fault or is this the dealer's fault?

Mr. CHESEBROUGH. Has it been previously determined that the vehicle came from the factory with that defect?

Mr. ROGERS of Texas. I don't know. This happened to me. That is the reason I called attention to it.

Mr. CHESEBROUGH. If the vehicle came from the factory with that defect, it is a fault or a failure of even our most extensive and inclusive quality control procedures. We are dealing with a product that is composed of about 14,000 parts, all interrelated, and there are many hundreds of man-operations involved in assembling them.

People are human. To the greatest extent possible, we have automated control procedures. But many control procedures cannot be automated, and are dependent on people.

Mr. ROGERS of Texas. Is there an inspection that happens right at the last to determine all these things?

Mr. CHESEBROUGH. There is; yes, sir.

Mr. BUGAS. Mr. Chairman, I don't want to know the name of the car, but was it a new car?

Mr. ROGERS of Texas. Yes, sir; it was brandnew.

Mr. BUGAS. What mileage did you have on it, roughly?

Mr. ROGERS of Texas. This happened some time ago, several years ago.

Mr. BUGAS. That was probably the responsibility of the manufacturer. We would expect it to be fixed by a dealer under our warranty policy as promptly as you could get the car to him. We regret such things enormously.

Mr. ROGERS of Texas. I understand this. I understand the human relationship of it. But there are so many complaints that come in about a door falling off, or screws not being tightened in certain areas of the car. It looks to me like the manufacturers would want to know these things because some inspector or somebody is not doing their job.

Mr. CHESEBROUGH. We do want to know.

Mr. ROGERS of Texas. It is not right for the manufacturers to take the responsibility and criticism that comes along with this without being able to track it down and find out who is at fault. The car is supposed to be in good running condition when it comes out.



Mr. CHESEBROUGH. We do want to know, Mr. Chairman, and we have a very extensive system of data collection from the field. These data are from all sources whatever, from our own field forces, from dealer reports, and so on. We have competent engineers constantly traveling around the country to pick these things up. These data are analyzed to determine how the difficulty could have happened. The control systems are then reevaluated to see whether we can make a further tightening to prevent recurrence.

Mr. ROGERS of Texas. I just raised the question. We will go into it later on.

Mr. BUGAS. There are further questions after lunch?

Mr. ROGERS of Texas. At 2 o'clock.

The committee will stand in recess until 2 p.m.

(Whereupon, at 12:05 p.m. the committee recessed, to reconvene at 2 p.m. the same day.)

#### AFTER RECESS

(The committee reconvened at 2 p.m., Hon. Harley O. Staggers (chairman) presiding.)

The CHAIRMAN. The committee will be in order.

#### STATEMENT ON BEHALF OF THE AUTOMOBILE MANUFACTURERS ASSOCIATION BY JOHN S. BUGAS (SPOKESMAN), BERNARD A. CHAPMAN, HARRY CHESEBROUGH, AND GEORGE RUSSELL— Resumed

The CHAIRMAN. Before we start formal questioning, the Chair would like to make a statement.

There have been some rumors that certain reports on accidents made at taxpayers' expense have been suppressed.

I have asked the clerk of this committee to get in touch with the proper agencies and request that those reports, if they were made at taxpayers' expense, be made available to this committee and be made a part of the record of these hearings. I wanted that understood before we started.

We do have before this committee on Thursday one of the agencies involved, and they will be asked to bring their records with them.

Mr. ROGERS, have you any further questions?

Mr. ROGERS of Texas. I had my 5 minutes before we adjourned, Mr. Chairman. Thank you.

The CHAIRMAN. Mr. Springer.

Mr. SPRINGER. Mr. Bugas, I am going to see if we can get this in perspective so the committee understands. This is a long statement. I read it yesterday. I went downstairs, had a cup of coffee, went upstairs and signed my mail and came back and I was only halfway through it. I want to see if I can put this into perspective as to what your position is.

You are in favor of Federal standards. That is correct; is it not?

Mr. BUGAS. Yes, sir.

Mr. SPRINGER. To be adopted by the Secretary of Commerce?

Mr. BUGAS. Yes, sir.

Mr. SPRINGER. With that, do you believe that there ought to be some guidelines so the industry knows more or less where they are and who

they can consult with, and whether or not they have any consultive process of their own by which they can go to the Secretary and talk this matter over; is that correct?

Mr. BUGAS. May I add something here, sir?

Mr. SPRINGER. All right.

Mr. BUGAS. Should I interrupt? I want to clarify something.

Mr. SPRINGER. I want to go a little further. With this, what you would like to have is something in the bill under the title that you have used here in your conclusions such as industry cooperation: Automobile manufacturers should be authorized to cooperate with one another to develop and adopt improved safety characteristics and to formulate proposed safety standards for adoption by the States and by the Secretary.

Is that true?

Mr. BUGAS. Yes, sir.

Mr. SPRINGER. You want something in there where you have a right to consult with the Secretary in the adoption of whatever rules the Secretary finally formulates?

Mr. BUGAS. Plus something additional which I will get to in a moment.

Mr. SPRINGER. All right.

In addition to that, you would like to have something in here on State cooperation. Out of this committee in 1958 came the Vehicle Equipment Safety Commission, which was the Beamer resolution of 1958. It gave the right of States by State compact to adopt rules uniformly.

There are now, as I understand it, 44 States that are a part of the Vehicle Equipment Safety Commission. Is that correct?

Mr. BUGAS. Yes, sir.

Mr. SPRINGER. Somewhere in this legislation you would like to have this built into this legislation so that the States do have something to say about this; is that correct?

Mr. BUGAS. Yes, sir; that is correct.

Mr. SPRINGER. Fourth, as I understand this, and as I read your statement, I think your paragraph 4 on page 38 is correct, as I understand it, in which you say that title I as presently written does one of two things: It declares null and void any State law or regulation establishing safety standards for a motor vehicle or other equipment if a Federal standard is in effect for that vehicle or equipment item.

Read literally this means the States would not be permitted to have any safety standards at all for cars made under a Federal standard, even though the Federal standard no longer applies—and this is the important one—after the car is sold to the first user.

That is the way you understand title I. That is the way I understand title I and I want to hear some evidence as to whether this is true, that this removes from the States the right to enter into compacts and so forth with reference to safety standards at the State level.

Alternatively, if it doesn't mean that, you say it means this: Alternatively, it could mean that after the car is first sold the State may impose any standard it chooses no matter how much it differs from the Federal standard. Either meaning seems to be undesirable.



Mr. BUGAS. The latter is a possible construction, but in any event, it is also undesirable.

Mr. SPRINGER. In the fifth place, what you would like to do, instead of giving the Secretary of Commerce the sole authority and prerogative to set the appropriate standards, you would like to have guidelines other than the words "appropriate, adequate motor vehicle safety, unreasonable traffic risks," in which you say these terms of "appropriate," "adequate," and "unreasonable" are very broad.

You would like to have this defined so that the industry knows exactly what the guidelines are and what the Secretary can do.

Mr. BUGAS. And so the Secretary knows also, Mr. Springer.

Mr. SPRINGER. All right, so that the Secretary understands that, too.

Mr. BUGAS. Yes, sir.

Mr. SPRINGER. You do have here two other parts which have to do with the effective date of the standards, and I trust somehow this could be worked out without too much difficulty.

The last one has to do with judicial review, and under this you do not want to use the words, if you take an appeal, that "substantial evidence standing alone" is sufficient to justify the Secretary's action.

What you do want is that the appealing court, the court of appeals, whatever it may be, must have a finding that the Secretary's action is correct, based on a fair evaluation of the entire record, not substantial evidence standing alone.

Mr. BUGAS. That is correct.

Mr. SPRINGER. Is there any other major thing in which your testimony here this morning that I haven't mentioned, in trying to get this in peanut form so that we can understand it and get thumb rules of where you stand?

Mr. BUGAS. I believe you have gotten the main elements of our proposal; yes, sir. Some of them could stand some elaboration, but you understand them correctly.

Mr. SPRINGER. This is what I wanted.

Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Dingell.

Mr. DINGELL. Thank you, Mr. Chairman.

Gentlemen, I would like to commend you for your statement presented to this committee. I think it is very mature and a very realistic statement, one which I think reflects great credit upon your industry.

I would like to ask first of all, does this statement represent the position of the four major auto companies?

Mr. BUGAS. Yes, sir; the four major automobile manufacturers.

Mr. DINGELL. Does it do so in every case?

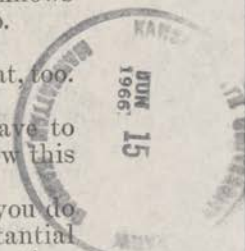
Mr. BUGAS. Yes, sir.

Mr. DINGELL. You are in total agreement on all the points in the statement and in the condensation of the statement?

Mr. BUGAS. That is correct, sir.

Mr. DINGELL. You have suggested a number of changes which I think would be helpful to the committee. Would you also submit to the committee language which would effectuate the suggested changes that you have set forth in your statement?

Mr. BUGAS. Yes, sir. Thus far we have been primarily debating and discussing principles and concepts among ourselves. We should be



happy to submit to the committee, when we have it formulated, what you might call a markedup title I.

I presume that is what you are requesting.

Mr. DINGELL. That is correct. In other words, I am asking you for a set of amendments on which the industry would be agreed which this committee may consider when it gets around to marking up the bill so we may understand what you have in mind.

(The proposed bill presented by the AMA appears on p. 1199 (pt. 2).)

Mr. BUGAS. Yes, sir.

Mr. DINGELL. You made some suggestions with regard to the language exempting certain vehicles from the requirements of the law or statute. Principally these would be trucks and buses; am I correct?

Mr. BUGAS. Buses and trucks of 6,000 pounds gross vehicle weight and up.

Mr. DINGELL. I would like to ask you if you have any objection to inclusion of trucks and buses under the safety standards of the bill?

Mr. BUGAS. No, the trucks under 6,000 pounds we regard as similar to passenger cars. But we urge that the bill exempt any of the heavier trucks or buses that meet ICC regulations.

Mr. DINGELL. Returning again, do you have any objection to trucks and buses being included under the safety standards which would be imposed upon other vehicles which would be operating on the roads?

Mr. BUGAS. We certainly think trucks over 6,000 pounds g.v.w. ought to be subject to safety regulations and safety standards. What troubles us is that the standards or any action governing them will have to be reconciled with the ICC regulations.

Mr. DINGELL. To prevent the industry from being caught in an impossible situation of being brought between the ICC on one flank and the Department of Commerce on the other?

Mr. BUGAS. That is correct; yes, sir.

Mr. DINGELL. But if this could be accomplished, you would have no objection to inclusion of trucks and buses under the safety standards provision of the bill?

Mr. BUGAS. None at all.

Mr. DINGELL. You mentioned in a number of other places in your statement the fact that you felt that there are, first of all, large numbers of autos on the road which are rather advanced in years and which have not been subjected to the safety standards, testing and so forth, that would be provided in the bill.

You indicated that this was a major safety factor. What would be the position of the industry, gentlemen, with regard to requiring compulsory automobile inspection by the States as a further safety protection for the motoring public and for the pedestrians?

Mr. BUGAS. Our industry believes that an adequate automobile inspection is highly desirable in the States, Mr. Dingell. We think that it could and should be accomplished by the States themselves with encouragement by the Federal Government under the provisions of title III of H.R. 13228.

Mr. DINGELL. Would you look with kindness on a provision which would encourage States to act to provide for inspection of motor vehicles?

Mr. BUGAS. We would. I believe there are 20 States that now have required motor vehicle inspection in operation. We are in favor of



the Federal Government acting to encourage the remainder of the States to adopt adequate and, if possible, uniform motor vehicle inspection.

Mr. DINGELL. You alluded in your statement to the fact that there are some 1,000 different State laws and State regulations regarding safety equipment and safety features on automobiles.

This multiplicity of varying and different standards that the industry must meet are somewhat of a burden on the industry, are they not?

Mr. BUGAS. Actually, Mr. Dingell, there has been a surprising and a very gratifying uniformity in the action that the various States have taken.

This has not, except in an isolated case or two, afforded the industry any major problem.

Mr. DINGELL. I am comforted to hear that. The point I am coming around to is this: Would the industry deem it to be desirable to have a fairly uniform pattern of State standards as opposed to the multiplicity of regulations that you might have to meet under 50 State regulations?

Mr. BUGAS. You mean Federal standards, do you not?

Mr. DINGELL. Federal standards, yes.

Mr. BUGAS. We think that if you bring the States in in an effective manner, if you encourage and allow the automobile companies to go forward and cooperate with respect to establishing these standards, plus, of course, adopting the criteria that Mr. Springer brought up, then we think that the Federal Government may well, to the advantage of everyone, have the final say in imposing standards nationwide.

Mr. DINGELL. You expressed concern about declaring by Federal statute null and void the different State laws and regulations on State standards, and I think we should keep that in mind. But I assume that the industry would regard it as valuable if you were to try and eliminate any conflict among the several States with regard to safety standards and with regard to safety equipment and so forth on a particular model or models of vehicles, am I correct? Wouldn't this be a desirable feature from the standpoint of the industry?

Mr. BUGAS. Yes.

Mr. DINGELL. One last point I would like to raise and then I will have to yield.

That is on the question of the resale of automobiles across State lines. You have indicated to us in your comments that there are large numbers of vehicles traded a second time, and that there is a tremendous number of used automobiles.

There is, of course, in this country a tremendous market for used automobiles. With regard to this point, would it be desirable for there to be some action by the Federal Government or the States to insure that motor vehicles traded across State lines, used motor vehicles, be certain to meet certain regulations before they can be sold in other States?

Mr. BUGAS. We believe this problem could be largely corrected if each State were allowed to establish and enforce standards within that State that are consistent or identical with the Federal standards.

Mr. DINGELL. Or by an adequate program of inspection.

Mr. BUGAS. Plus the inspection. The two must come together, yes, sir.

Mr. DINGELL. Thank you very much.

The CHAIRMAN. Mr. Younger.

Mr. YOUNGER. Thank you, Mr. Chairman.

It has been a long time since we have had such a high-powered panel before this committee. We appreciate very much the evidence that you have submitted today.

I did not detect what you had in mind you would recommend with regard to foreign cars coming in.

Mr. BUGAS. Well, Mr. Younger, we recommend the ultimate establishment of Federal standards, bringing the States and the automotive industry in. These Federal standards would apply to all automobiles unless, of course, a manufacturer were able to go to the Secretary and get exemption.

We conceive that under certain circumstances the Secretary may wish to make exemptions. We are not recommending them, but we think flexibility should be there so that if a good case is made and if the Secretary desires, he can make exemptions. With that exception, the standards would apply to all cars.

Mr. YOUNGER. Under what circumstances do you think he ought to be allowed to make exemptions?

Mr. BUGAS. The model-change cycle for foreign cars, for instance, may be much longer than ours. In the United States we make changes every year, sometimes major changes, but some improvement, at least. Some cars that are made overseas and that sell in good volume here have a longer model cycle. That means that it may take a longer time to install a device or make an engineering change to meet a Federal standard. So you might impose great hardship on a foreign manufacturer, for example, by making him meet a timing that we could easily meet in this country.

This is just one example, and I am not pleading the case for foreign manufacturers. I am simply saying that there could be reasonable exceptions. If I may make this point, we are not proposing anything that is designed to eliminate foreign competition. Our industry does not believe in eliminating foreign competition.

Mr. YOUNGER. I appreciate that. But, on the other hand, if we in our wisdom feel that certain safety standards ought to be present in all new cars, I think they ought to prevail in all new cars, whether they are manufactured in the United States or whether they are manufactured somewhere else.

I don't see how you can adopt two standards and say that we are going to permit this car to continue to go on the highways but it does not meet the standards.

Mr. BUGAS. I think you are absolutely right. I only say that you and I might agree that an exception in a certain situation might be desirable. I am not pleading for that. I just say it is possible.

Mr. YOUNGER. And you think that the Secretary ought to be given that power?

Mr. BUGAS. I think it ought to rest somewhere, sir. Probably with the Secretary.

Mr. YOUNGER. That is a lot of power to give to him.



Mr. BUGAS. I would not argue with you if you don't wish to do it, sir.

Mr. YOUNGER. You know the old statement of what is good for General Motors might be good for the country.

Mr. BUGAS. You see, Mr. Younger, I am straining to be reasonable.

Mr. YOUNGER. One other point: A lot of this publicity, of course, is emotional, or sensational, and we recognize that. A lot of emotion was created by the newspapers recently when General Motors and Ford called back some of their cars.

Is that something new in the automobile industry?

Mr. BUGAS. No, sir; it is not.

Mr. YOUNGER. Can you give us some examples? All the press stories lead the public to believe that this was something new, that you had never done that before.

Mr. BUGAS. Mr. Younger, let me give you the general situation and then perhaps get to specifics.

Try as we may, we cannot make the perfect car. We put tremendous facilities, energy, talent, and experience into the making of every car that we send to the dealer to be sold.

In spite of our best efforts and elaborate testing, flaws will develop. We don't like that.

Whenever we discover one of those defects, and particularly if it has a safety connotation, we go through the most effective process that we have been able to devise to get that car in and have it fixed. This has been our practice for years, and we have notified and improved the procedure through the years.

We find these defects occurring occasionally, much more frequently than we would like. Sometimes when the car gets into the hands of the customer, something occurs that we didn't foresee. Then we try to get that car in just as rapidly as circumstances will permit and get it fixed.

We do that by going through the dealer, because he is the only one for a considerable time who knows who the customer is. The dealer tries to get that customer to come in and have the car fixed. This is an imperfect procedure, but it is the best we have been able to devise. I know there will be improvements that can be made in it. We are making some.

Mr. YOUNGER. Can you give specific examples in the past where cars in any quantity were ordered in, and can you furnish them for the record?

Mr. BUGAS. All right, sir. Let me give you just one orally and then we can give you others for the record if you desire.

When giving you specifics and precise procedures, I can speak only for Ford Motor Co. We do not trade information on campaigns in the industry. My company doesn't go over and tell General Motors, Chrysler, or American Motors about defects that we found in our cars, for obvious reasons, nor do they tell us.

Let me give you an example of what we call a campaign that occurred in Ford Motor Co. This concerned 1966 Ford and Mercury cars with front disc brakes. We discovered the problem when we had 4,348 of these out of the factory, some of them in customers' hands, some in the dealers' hands, and some still within the company, on the convoy or in the yard. On these cars there was a hydraulic hose going to the disc brake next to the front wheel which was designed

to bend in one direction, and according to all of our tests and manufacturing processes was going to do so.

We found that on a small percentage of these cars under certain conditions the hose would bend in a different direction and might rub against the wheel. If it rubbed against the wheel, the wheel would eventually wear a hole in the hose, some of the brake fluid would go out and you would lose your brakes, so this was obviously a critical safety item.

When we discovered this problem, out of that 4,348 that had been produced, there were 878 in customers' hands and there were 3,470 at the dealerships or within the company, not being used but waiting to be sold.

The complaint came to our attention on October 7, last year, very shortly after production started. A Boston dealer reported by phone a single failure on a customer vehicle. Between that day and October 9, Thursday to Saturday, an investigation of the problem was made in Dearborn and in Boston. Identification of the model involved was made. On Saturday, we sent telegrams to company personnel stopping production and shipment on all cars affected. We provided the repair instruction for production and field personnel to use.

On Monday, the 11th, we made conference calls to all district sales offices to stop retail sales of affected cars and provided a verbal account of the repair needed. The districts were instructed to telephone all dealers both to stop the sale of any car involved and to withdraw from use all such cars previously delivered.

We even issued instructions, when the dealer might locate the customer or other driver of a particular car while away on a trip, to get him hotel or motel accommodations while his car was being fixed. The fix itself was relatively simple.

During Tuesday and Wednesday, October 12 and 13, we identified every car involved by serial number to the dealer and the district office, whether it was in the dealer's hands, in the district's hands, or in customer hands. Obviously, our principal concern at that moment was the customer.

We then provided detailed written instructions and the necessary parts to fix the hose in question.

On Thursday, the 14th, one week after the telephone call from Boston, we published for all our districts and dealers a detailed instruction package including technical instructions and drawings; we established each dealer's responsibility to repair particular cars identified by serial number; we provided followup instructions and forms for use both by the dealer and the district; and we provided the necessary parts for each dealer's assigned number of repairs. We provided for reimbursement to the dealer for doing the job.

Remember, we began with only 878 cars already in the customers' hands. The latest report shows that we have fixed all but slightly under 2 percent and we don't know where the remaining cars are. We are still trying to find them. This was a case where there was a critical safety factor involved; we jumped into it and we got the fix underway in very short order. If there is safety involved, we move fast. I am sure these gentlemen in the other companies, although their procedures may differ, act in the same way.



We have great concern inside the company to determine how such a problem occurred; sometimes heads roll on these things. Then we determine how we can prevent this or anything similar from occurring in the future.

I said that our procedure is not perfect but we are greatly concerned about it because the safety and life of the user are at stake. This, of course, is paramount.

Mr. YOUNGER. You gave an example of last year. How many years back would that go?

Mr. BUGAS. I am only familiar with the record going back to 1960. I am sure we were doing it in some fashion before that. I just haven't looked.

Mr. YOUNGER. Since 1960 you have been doing this?

Mr. BUGAS. We were doing it before that, too. I only looked that far back.

Mr. YOUNGER. That is all. Thank you.

The CHAIRMAN. Mr. Rogers.

Mr. ROGERS of Florida. I am not sure that the bill, as I see it, proposes a proper procedure machinery to bring about the standards.

What would your reaction be to a presidentially appointed commission composed of experts from the industry, experts from the academic or scientific community, from States, from the Federal Government, and from the public to act as a presidential commission for the setting of safety standards on automobiles?

Mr. BUGAS. Mr. Rogers, we would have to ponder this suggestion in order to give you a definite and useful answer. We would have to know fairly precisely what the board was supposed to do.

Mr. ROGERS of Florida. It would advise the Secretary on standards.

Mr. BUGAS. I would see nothing wrong in that sort of an approach. I do wish to point out, however, that the process of establishing or formulating standards does not lend itself to accomplishment by a nonskilled group of people. For such a group to advise on the matter of standards may have some merit. But the actual formulation of the standards to be recommended to the Secretary would have to be done in another fashion, I would think.

Mr. ROGERS of Florida. I would have thought that if you could get a Presidentially appointed commission of experts in the field this could perhaps be a basis.

Do you mean that you feel the Secretary has the expertise to set the standards?

Mr. BUGAS. No, he would have to acquire the expertise, I think.

Mr. ROGERS of Florida. Could he do that as soon as we pass the legislation?

Mr. BUGAS. I would think not. Of course, he could call on some branches of the Government where expertise exists.

Mr. ROGERS of Florida. Where does it exist in Government?

Mr. BUGAS. In the Bureau of Standards, most certainly.

Mr. ROGERS of Florida. To set standards?

Mr. BUGAS. They are familiar with the standardmaking process. They are not, I am sure, intimately familiar with the standards in the automobile industry. But in addition to them, you have the GSA which has established specifications, some of which involve standards.

Mr. ROGERS of Florida. Do you have any representation in Government of industry so that your views can be considered as well?

Mr. BUGAS. At the moment, do you mean?

Mr. ROGERS of Florida. Yes, or under the bill proposed.

Mr. BUGAS. Under the bill that we conceive, we would be in constant communication with the Secretary.

Mr. ROGERS of Florida. I know you conceive that to be, but I don't see anything in the language that requires the Secretary to consider your views. Do you see it?

Mr. BUGAS. We, of course, have not submitted language. We have submitted concepts.

Mr. ROGERS of Florida. I am talking about the language as it is drawn.

Mr. BUGAS. In title I?

Mr. ROGERS of Florida. Yes.

Mr. BUGAS. No.

Mr. ROGERS of Florida. Of course not. What I am saying is that it seems to me that the Government should take advantage of the expertise in industry, what expertise we have or can develop in Government, tie in the State governments as well, which you have recommended, and also the public, so that the public has a say-so in this, whether they think it is moving fast enough or not. From this board they can advise the Secretary who can then set those standards that the board advises on.

Do you see anything basically wrong with that?

(See AMA letter of May 18, 1966, p. 338.)

Mr. BUGAS. Mr. Rogers, I think your idea would probably have considerable merit providing it would not ignore the States. As I understand you, it does not displace the States. This is very important.

Mr. ROGERS of Florida. Let me ask you another thing. I don't think the bill goes to the problem at all, really, of safety. I think it borders on it, and I think it probably touches some of the problems we have. Probably the safest cars on the road today are the new cars. I think that would be admitted.

Out of 86 million cars that are on the road today, and maybe more, 8 million or 9 million each year are new. So we are dealing with 8 million or 9 million new cars and ignoring almost 90 percent of the problem that exists.

What do the dealers do, or what do you require of your dealers, when they sell a used car concerning putting on a certificate of safety? Is there any requirement that this be done when they sell used cars?

Mr. BUGAS. No. There is no such requirement.

Mr. ROGERS of Florida. Is there any reason why the automobile manufacturers couldn't say to their dealers who are selling used cars, "We want you to check this car over, make sure it is safe, and put on a sticker, a certificate of safety, before that car is sold"?

Mr. BUGAS. We can recommend this strongly to the dealers, sir. Of course, we do have programs encouraging the dealers to refurbish the cars that they take in trade and that they sell.

Mr. ROGERS of Florida. I would think this would start to meet the problem where we can't get in as yet and set a Federal standard. Twenty States have inspections and you perhaps wouldn't need it so much there.



But in all the other States where you have this large turnover, you could require a certificate of safety before a car is resold. This would get to the problem of 90 percent of the cars that are not new where probably most of the accidents are caused.

I think in your testimony you state that at least 50 percent of these cars have at least one defect. In fact, I have seen some polls recently taken that said 70 percent of the used cars have at least one defect. This would be an immediate way for the automobile industry to do something to meet the problem beyond the new car field, which I don't think is the most critical problem.

I would hope that you would consider in your group some action that would encourage this on certificates of safety, and also I would appreciate it if your group could give me your views, or perhaps to the committee, or your feeling on the Presidential Commission to advise the Secretary on the setting of standards.

Mr. BUGAS. We shall give thoughtful consideration to your suggestions, and we will give you our views on the advisory committee.

Mr. ROGERS of Florida. If you could, let me know the views of the industry on the certificates of safety.

Mr. BUGAS. Very good, sir.

(For information requested see letter from AMA, p. 338.)

Mr. ROGERS of Florida. Thank you very much.

Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Devine.

Mr. DEVINE. I would like to compliment you on your statement this morning. You have added considerably to the record. I have a number of questions to be directed to either you or your colleagues, Mr. Bugas. One may be difficult to answer due to absence of information, but is anyone in your panel qualified to give us any statistics relating to either fatal or serious automobile accidents which resulted from defective equipment and not connected necessarily with the driver?

I know these are difficult to determine after an accident, whether there is a mechanical failure or in the manufacturing process. But are there statistics available in that area?

Mr. BUGAS. Mr. Devine, there are few data and only estimates as to what extent the vehicle itself contributes to fatalities. That is your question; isn't it?

Mr. DEVINE. Yes.

Mr. BUGAS. There are no meaningful data on that. You have guesses and estimates all over the lot, ranging from 6 percent on the low side to 70 percent on the high side. The fact that there are no meaningful statistics or reliable data suggests that a great deal of research should be done. This is provided for in the bill.

Mr. DEVINE. Of course, one reason is that after a serious accident many things are broken up to a degree that you don't know whether that occurred during the accident or happened prior thereto.

Mr. BUGAS. This is one of the problems; yes, sir.

Mr. DEVINE. Apparently there has not been a great deal of progress in this area. In the early 1950's, I was the author of an inspection bill for my State of Ohio. During the testimony given before the various legislative committees, this same question was raised and about the same answer was given.

So at least during that 10- to 15-year period there has not been a great deal of progress in this area. Is that correct?

Mr. BUGAS. I think so.

Mr. DEVINE. This does not necessarily relate to the same subject, but are you in a position to tell me what percentage of the business of the Ford Motor Car Co. is other than the production of passenger automobiles, such as in the area of Government contracts?

Mr. BUGAS. Government contracts having to do with automobiles or other equipment?

Mr. DEVINE. Separate and apart from automobiles. Are there percentage figures available on this? I would ask this same question of Chrysler, General Motors, and American Motors.

Mr. BUGAS. Perhaps we have that. We may have to furnish it to you.

We don't have it precisely but in Ford Motor Co. it is very small. Mr. Dean advises me it is probably less than 10 percent.

Mr. DEVINE. Would the same figure apply to Chrysler?

Mr. CHESEBROUGH. I wouldn't want to be held to the accuracy of this, but I think it is of the order of 3 to 5 percent, sir.

Mr. DEVINE. What about General Motors?

Mr. RUSSELL. Ours varies from year to year, but it would be in the area of 10 percent. Our defense sales would be in the area of 2 to 3 percent recently. They have been higher.

Mr. DEVINE. And American?

Mr. CHAPMAN. Ten or better.

Mr. DEVINE. That is pretty wide latitude.

Mr. CHAPMAN. Well, let's say 10, 11, or 12.

Mr. DEVINE. Then the overwhelming majority of the gross business of each of your companies relates to automobiles?

Mr. BUGAS. And trucks; yes, sir.

Mr. DEVINE. I was rather surprised initially at the position of the automobile industry so far as this legislation is concerned. I don't know whether your industry has caved in to pressure or what, but it came somewhat as a surprise to me that you would be willing to move into an area where there could be additional Federal control of what originally was a free enterprise system.

I know you, particularly, Mr. Bugas, were a member of probably the most highly efficient Government organization for a number of years, but I know generally in business they are reluctant to come under the control or regulation of some czar or bureaucrat.

Is there any particular reason that you feel these people can give you better advice than you can dig up through your own devices?

Mr. BUGAS. Mr. Devine, there are several reasons for our position.

No. 1, under our proposal we would not consider the Secretary a czar in this area, but this presupposes that Congress would provide the criteria and the procedures that we have recommended.

No. 2, we have proposed that the industry be allowed to participate in the standardmaking process, feeding these standards to the Secretary.

No. 3, our position provides that the States, through the VESC, be brought into the process, and not just on a superficial basis.



With these three important provisions, we do not fear the Secretary's action in setting standards, but rather we think it would be welcome in moving toward uniformity throughout the country.

Mr. DEVINE. You are willing to take that chance?

Mr. BUGAS. Yes, sir; very definitely.

Mr. DEVINE. I notice in your press release statement that this is rather speculative in nature because you say, "Ways must therefore be found to build a creative partnership among the Federal Government, State governments, and the automobile industry." You apparently aren't convinced that this is the solution, but you are shooting in this direction and being quite hopeful.

Mr. BUGAS. It is hard for us to conceive of a Secretary who wouldn't feel a great necessity for bringing in the States and the automotive industry. It could happen, but under the procedures that we recommend, we don't think there would be such a Secretary.

Mr. DEVINE. I would agree with you that the desire very definitely would be there, but the purpose is to establish Federal vehicle safety performance standards on a cooperative basis, I presume.

Mr. BUGAS. The Secretary would have the duty to set standards, but there would be these safeguards. First, there would be provision for consultation with a commission made up of representatives of the States, where a vast body of experience and knowledge exists. We think this is one assurance that he would not act precipitately.

Second, the industry would be allowed to cooperate in setting standards initially, to submit them to the Secretary for approval, and to comply with them while he was still examining them.

We think these two things would assure that the Secretary would not act arbitrarily or precipitately. If he does, then judicial review, based on the criteria we have recommended that you set out, would allow us to challenge his action. We would assist him effectively in the process, in our view.

Mr. DEVINE. Finally, just for the purpose of the record, you don't wish, of course, to leave this committee with the impression that your company and the other companies haven't been moving in this direction of trying to set safety standards over the years on your own?

Mr. BUGAS. Quite the contrary, Mr. Devine. I think the industry and the individual companies have done an outstanding job in the setting of safety standards. The industry has done a really remarkable job in building safety into the car.

Mr. DEVINE. I would agree with you as far as that particular point is concerned.

Thank you very much.

The CHAIRMAN. Mr. Macdonald.

Mr. MACDONALD. Thank you, Mr. Chairman.

Since I have been here, there has been quite a good deal of talk about how the States, some 22 States, I think you said, have safety regulations.

Mr. BUGAS. Motor vehicle inspection, yes, sir. There are 20 States that have it.

Mr. MACDONALD. Mr. Rogers made mention of this, and this is why I bring it up again.

My own State of Massachusetts has such a law, but isn't it true—and I know it is true of Massachusetts—in other States as well, that

the so-called safety sticker that you get is the result of merely driving into some authorized station, and the authorization comes from the State and is very easy to get, and they ask you to turn on your headlights so that the beam goes against the wall and if the beam meets the requirements, and you can blow your horn, and the muffler isn't making a real racket, some boy comes out and puts a safety sticker on you and you are all right to go out on the highway?

Is this your idea of a safety inspection?

Mr. BUGAS. Mr. Macdonald, this is a question of procedures rather than of principle. The principle of motor vehicle inspection is, in our view, absolutely sound and necessary. It is true that some States have a better inspection system than others. If some States have procedures that result in the type of inspection you describe, then they are wrong and their procedures should be strengthened.

Mr. MACDONALD. I take it that you would change the inspection laws in Massachusetts. I can guarantee you the procedure that I outlined is followed in Massachusetts.

Mr. BUGAS. Possibly not the laws, but perhaps the enforcement of the laws. I am not familiar with Massachusetts.

Mr. MACDONALD. Can you name me a State that does more than the one I have outlined?

Mr. BUGAS. I understand Pennsylvania has an excellent inspection.

Mr. MACDONALD. What do they do? You say it is an excellent inspection. What do they do?

Mr. BUGAS. I am advised that Pennsylvania is considered one of the best, sir. Perhaps the law is better enforced than in Massachusetts.

Mr. MACDONALD. What do they do that will make a car that is operating on the road prove that it is a safe vehicle, in order that it may be driven in any of these 22 States that you are talking about?

Mr. BUGAS. Under the model type of inspection system, the inspectors took at the critical items on a car. They perform a real inspection on the lights, the brakes, backup lights, directional signals, steering, tires—

Mr. MACDONALD. How do they test the steering?

Mr. BUGAS. They determine whether there is too much play in the steering gear.

Mr. MACDONALD. How is this accomplished?

Mr. BUGAS. Perhaps you would speak on that, Harry?

Mr. CHESEBROUGH. The State of Pennsylvania has private inspection stations appointed to conduct periodic vehicle inspection under regulations set up by the State. The problems of any vehicle inspection system are administration and enforcement.

One of Pennsylvania's requirements is for a check of the steering. This means that the linkage is inspected to see that it does not have looseness, that the steering must appear to be in order, and that the wheels must be properly aligned. Pennsylvania requires the removal of a wheel and brakedrum.

Mr. MACDONALD. The words you are using are lawyer like words, that it appears that the car is ready to be given a stamp that it is safe. But do they actually road test it? Do they do anything like putting it under any real tests?

Mr. CHESEBROUGH. No, sir; it is an inspection operation.



Mr. MACDONALD. You can look at a car and a car can look very safe indeed, and yet it might be very unsafe. The point I am trying to make is while it is fine and good for all the States righters in our committee to be talking about a Federal standards bill as an invasion of States rights, I would point out to you that it is a right that the States have not utilized, and that they actually do not have any uniform standard for what is safe and what is not safe.

If I am saying something that is not true—and you are much more versed in this field obviously than I am or you wouldn't be representing this great industry that you are here today representing—please correct me.

Mr. CHESEBROUGH. Congressman, there has been developed, in 1941 if I remember—it was revised in 1956 and revised again in 1963—an American Standards Association standard for the inspection requirements for motor vehicles, trailers, and semitrailers operated on public highways. At the same time another standard was established covering the requirements for the stations that conduct this inspection.

I would be happy to supply these standards to the committee, if the members are not acquainted with them. They have been very carefully worked out by the people involved. Many of the States that have inspection systems operate them in accordance with these standards.

Mr. MACDONALD. Thank you. I am sure the committee would be happy to have them, and if the chairman says so, we can include them in the record.

I was interested to find out if a Boston dealer who found out there was some defect in a Ford—was it a Ford?

Mr. BUGAS. Yes, sir; the one I was talking about was a Ford, I am sorry to say.

Mr. MACDONALD. I am not picking on Fords. I am sure they are good cars. But what amazes me is that a dealer would be able to inspect, with the very limited inspection facilities of most dealers, with his very limited equipment, and he would be able to locate a defect that the manufacturer didn't locate.

I see on page 11 of your testimony that, as I understand it, the defect was in the brakes. Is that right? The defect that you spoke of that this very smart Boston dealer found was in the brakes?

Mr. BUGAS. Yes, sir; in the front wheel disc brakes.

Mr. MACDONALD. On page 11 you say that the extent of quality checks on brakes is illustrated by the fact that your industry road tests 2 million brakes and inspects 35 million brake parts each year.

How come this dealer was smarter than the Ford manufacturing company?

Mr. BUGAS. Mr. Macdonald, I attempted to make the point a few moments ago, perhaps before you had come in, that we do attempt to make the perfect car. We put in tremendous engineering and design talents, time and facilities, but we fall short of the perfect car. Once in a while we discover a defect in a car or a series of cars after some units have been delivered to the customer. And his use is the final test. All the tests that we can devise—our pothole test, our tests that run the car until it drops—sometimes don't uncover a defect that the customer finds. This is what happened in Boston. The dealer was smart enough to pick it up.

Mr. MACDONALD. I am glad he found it out. What I was going to ask in that regard was this: I know you spend a good deal of money in research, design, and other things. How much does Ford spend a year in forming the design or fashion lines for the oncoming year in any given year?

Mr. BUGAS. Do you mean on new model expenditures?

Mr. MACDONALD. Yes.

Mr. BUGAS. It varies from year to year, and it varies greatly, depending upon the nature of the change.

Mr. MACDONALD. If there is a trade secret, we can skip it. But I would like it in round numbers.

Mr. BUGAS. Mr. Macdonald, I hope that you won't press me to give you figures on what it costs us to bring out a new model. This is the most closely guarded secret in our industry.

Mr. MACDONALD. Is it also a closely guarded secret how much you spend on research for safety?

Mr. BUGAS. No.

Mr. MACDONALD. What would the comparison be in round numbers, because this is such a highly secret matter that you speak of, between the amounts spent on research for design and fashion, and what women are going to buy, what color of cars, et cetera, as compared to research for safety?

Mr. BUGAS. I hope you don't force me to make comparisons because I would like to give you precise figures on safety.

At Ford Motor Co. alone, we estimate that in 1965 we spent \$138 million on matters directly related to safety.

Mr. MACDONALD. How much did you spend on new design and fashion, colors, et cetera?

Mr. BUGAS. I hope you don't press me to answer, sir. This is a trade secret, most closely guarded.

Mr. MACDONALD. I am asking you proportions. If you don't give me one end of the proportion, I can't find out the other.

Mr. BUGAS. If I give you proportions, sir, I give you the answer.

Mr. MACDONALD. Would you say it is safer to assume, as I do assume, that the amount spent, \$138 million, on safety is considerably less than that spent for trying to read the public's mind as to what it is going to buy as far as fashion, color, et cetera?

Mr. BUGAS. You are talking about the model change now. Let me elaborate for just one moment, if I may.

Mr. MACDONALD. The chairman has the gavel in his hand and I am waiting for it to bang.

Mr. BUGAS. It may be more and it may be less than \$138 million. I ask you not to force me to answer that.

Now, with respect to the model change—

Mr. MACDONALD. Would you contradict me if I said it was a good deal more?

Mr. BUGAS. I will not comment on it, sir. It may be more and it may be less.

Mr. MACDONALD. You are here representing the industry, I take it. I am not being facetious at all. I think I am asking you a question that, if we are going to pass legislation on this matter, and if you say that the industry should be self-regulating up to a point, would mean that we ought to find out how much you can self-regulate yourself.



Mr. BUGAS. Mr. Macdonald, it is so important that we keep this figure confidential that before I could answer, I would have to take this up with our board of directors. We do not want to give this information. If I give it to you, I give it to my competitors on my right and left, and I don't want to do this.

Mr. ROGERS of Texas. Will the gentleman yield?

Mr. MACDONALD. Yes, sir.

Mr. ROGERS of Texas. This is almost a subject where the fifth amendment would properly apply.

Mr. BUGAS. With the exception, sir, that I do not think it is incriminating to put out improved cars every year.

Mr. MACDONALD. I just have one last question because, as I say, my esteemed chairman has the gavel waving about and I am afraid I am about to be shut off.

There is one question that has always bothered me, and I have never understood it. If there is an accident in which a passenger is hurt and it can be traced back directly to a malfunction in the automobile, in the vehicle, who is responsible—the manufacturer who made the car or the dealer who sold the car to the customer?

Mr. BUGAS. I think it depends on the character of the malfunction. If the malfunction is due to a part that was made improperly by the manufacturer, then it is the manufacturer's responsibility. I presume a court of law would rule in that way.

Mr. MACDONALD. What does a dealer do to a car that could make it malfunction?

Mr. BUGAS. I presume when a mechanic repairs the car he might fail to do something.

Mr. MACDONALD. My illustration is of a new car.

Mr. BUGAS. If the malfunction is due to a defect in the design of the car that the manufacturer should have been aware of, then I presume the court would hold that the manufacturer was responsible.

Mr. MACDONALD. But you don't have any agreement with the dealer about who is responsible or who isn't; is that right?

Mr. BUGAS. I don't know whether our dealer agreement covers that or not, sir. I would have to check.

Mr. MACDONALD. This is a quick last question. I see that you say that in 1966 you doubled the safety of the glass in the automobile.

Mr. BUGAS. We doubled the thickness of the plastic interlayer.

Mr. MACDONALD. I recall having a car that predates 1966 and labeled on the glass it says "Safety Glass." How can you redouble safety? Was it unsafe in 1965?

Mr. BUGAS. No, sir.

Mr. MACDONALD. How can you double it?

Mr. BUGAS. You can almost always improve on safety, Mr. Macdonald, and when we can, we do.

Mr. MACDONALD. Will 1967 have a tripled safety device in the glass?

Mr. BUGAS. Probably not. The 1966 improvement in glass was a very significant one that took years of research. As quickly as we can develop safer glass, we will use it.

Mr. MACDONALD. If you didn't have safety glass in 1965—

Mr. BUGAS. We did have.

Mr. MACDONALD (continuing). Why do the automobile manufacturers say on the glass that it was safety glass?

Mr. BUGAS. We did have safe glass in 1965. Through long experimentation and research, we were able to find glass that was safer and we put it on the 1966 models.

Mr. MACDONALD. This brings me back to the question that you will not answer, even though it was suggested by Congressman Rogers that you take the fifth, about the proportion spent on research and with the models. Weren't you concerned with the number of people killed going through glass in 1965 and 1964?

Mr. BUGAS. Mr. Macdonald, we are very much concerned about anyone being killed by an automobile. We were concerned in both 1965 and 1966.

Mr. MACDONALD. As Mr. Younger said, this is getting to be an emotional issue. How many people have been killed in the last 5 years?

Mr. BUGAS. In 1964 I believe it was 47,700, and in 1965 it was 49,000. Whatever it is, it is extremely serious.

Mr. MACDONALD. The people and their families would have to be rather emotional about it, certainly.

Mr. BUGAS. Certainly.

Mr. YOUNGER. Would the gentleman yield?

Mr. MACDONALD. I will yield.

Mr. YOUNGER. I was referring to the articles that appeared in the papers when the automobiles were called in. The question of emotion applies to everything except the driver. People do not seem to realize that a large percentage of the accident is the driver's fault. You can get a story in the paper and, of course, you create a lot of emotion. You are bound to. This is not the first bill that we have had up here that has been full of emotions.

Mr. MACDONALD. And it won't be the last, either, Mr. Younger.

I was going to say I get very emotional when I watch on TV the races that they have. I understand that Ford is one of the leading contenders for worldwide prizes in speed now. Is Ford doing this because they want to emphasize how safe the Ford machine is, or is this an appeal to the public who just want to have the fastest thing on wheels?

Mr. BUGAS. Mr. Macdonald, if Ford had nothing to do with racing, racing would continue apace.

Mr. MACDONALD. I didn't ask you that question.

Mr. BUGAS. We at Ford Motor Co. feel we learn something from racing. Again, I can speak only for my own company, as each company has its own policy. We at Ford feel that when we engage in racing we learn something of material assistance to us in the design and engineering of our cars. We learn how to make better and more durable engines, how to make better brakes, tires, et cetera.

Mr. MACDONALD. Even though, sir, most of those cars don't even use the same fuel, they are not constructed in the same way, they have different kinds of drives and everything else—that is going to help a passenger automobile?

Mr. BUGAS. It helps us materially in our engineering and research; yes, sir.

The CHAIRMAN. The gentleman will have another opportunity in a few minutes when we come back around.

Mr. MACDONALD. Thank you.

The CHAIRMAN. Mr. Cunningham.



Mr. CUNNINGHAM. Thank you, Mr. Chairman.

Mr. Bugas, I want to compliment you and your associates for your presentation here today. I have only been in Congress 10 years. I have heard a lot of testimony by witnesses who didn't know what they were talking about. It is refreshing to hear witnesses who actually know what they are talking about, and that is what you have been doing today, as far as I am concerned.

Mr. BUGAS. Thank you, sir.

Mr. CUNNINGHAM. This is an issue that has been sensationalized, and it becomes emotional with certain people who are not familiar with it, people in public life who want to indicate to their constituents that they are going to solve the traffic safety problem.

I have been proud of the House of Representatives, and by the questioning of the various Members I feel we are getting a more thorough and objective look at this problem which certainly, in my opinion, wasn't attained in the other body.

I might say, having been in this field professionally, that the automobile people have been the leaders in the fields of traffic safety. There is no one who doubts that, if they know anything about this problem. You have not only spent your own money on traffic safety, but you have supported other organizations, such as the Automotive Safety Foundation, the National Safety Council, and a dozen other groups who are in this field.

Now we are reading a lot about this problem. It is in the news. It is only in the news because some uninformed people have made, in my opinion, some very unwise statements. This is an insult to the millions of people who through the years have been working on this problem, the various safety organizations in the local communities, the police departments, the highway patrols, the traffic engineers, and the newspapers who promote safety programs, the American Bar Association, who have a program under their junior bar group to improve the administration of traffic procedures in the courts.

So I say this has been sensationalized, and, in my opinion, it is an effort by certain people to get headlines. This is not going to solve the problem. I am interested in this, and I want something done about it, and I have devoted a great deal of my life to trying to bring this about.

I recall one of the representatives from a Federal agency a few weeks ago saying that they have insisted upon certain safety devices in vehicles that are purchased by the Federal Government. He gave the impression that because they insisted on certain safety devices, they had the safest cars. Yet I asked him if he had any statistics that GSA, or whatever agency was involved, had gathered, because Government vehicles do have many accidents. I said, "Do you have a central reporting system to determine what causes these accidents with these cars that you have praised because you have insisted on certain safety features?"

It was amazing to me when he said that the Federal Government doesn't have a central reporting system. So they just don't know what they are talking about. You can't talk about traffic safety and what to do about it unless you have figures, the statistics, on what causes the accidents. Many communities and States have adequate and good statistics. Unfortunately, it is not universal.

I hope we can write legislation to accomplish this, because until we have universal reporting by the enforcement people involved as to their judgment as to the cause of accidents, we are not going to be able to determine just what the major causes are. Certainly the automobile is not the major cause. It is one of the very minor causes, if that.

Mr. MACDONALD. Will the gentleman yield?

Mr. CUNNINGHAM. I would even say that we were talking about little things. When Mr. Rogers of Texas said he had one windshield wiper longer than the other, was an example. Certainly that was not the result of the engineering of the design. That was due to poor workmanship, in my opinion.

As I mentioned once before, in the last few years the gas stations have developed the practice that when you drive in to get your gas tank filled they wash your windshield with a detergent, and when you are driving at night and it is raining and you have your wipers on, you have a film in front of you that obstructs your vision. You can't even see.

I won't go into that and all of the other things that cause these accidents.

Mr. MACDONALD. Will the gentleman yield?

Mr. CUNNINGHAM. I might say I don't think the Federal Government, from the testimony that they gave, really understand this problem at all. As a matter of fact, they had complete charge and control of the building of our rockets and missiles and how many of them have flopped? If they can't build a space vehicle that they have complete control over, complete direction of, I don't know what they can do in the field of traffic safety.

Mr. MACDONALD. Will the gentleman yield for a question?

Mr. CUNNINGHAM. Yes.

Mr. MACDONALD. I was going to ask the gentleman when he said there were no statistics about this thing, and it is just newspaper talk, does the gentleman not believe the statistics that are given out both by the various safety groups that he has discussed and the automotive industry, itself, about the number of deaths on the highway?

Mr. CUNNINGHAM. If the gentleman had been familiar with this field, he would know that we know how many deaths there are and how many injuries.

Mr. MACDONALD. I think that is the leading statistic.

Mr. CUNNINGHAM. My point was that no communities have adequate statistical material. In my city, we happen to have adequate statistical material, and in thousands of other communities, but it is not nationwide. That was my point.

Getting to your point, sir, about motor vehicle inspection, I don't know what it is in Massachusetts, but there has been good motor vehicle inspection in my State. They have in the past not only inspected tires, wheel alignment, and so on, but they rejected the car for broken glass, for headlights that are not focused properly. They check the horn, the muffler, and so forth.

In certain instances, I might say, they do make a road test, if they are not certain. So there are good inspection programs. I think that is one of the things that we ought to be concerned with here, to see that



the States have good inspection programs, and perhaps set down some standards, if we have that power.

I would say in conclusion—no, I will ask ask this question: Here is what bothers me a great deal. Because everybody wants to stop the carnage on the highway, if this bill in its present form were passed, wouldn't it be true—at least I think it would—that the public would then say the Federal Government is going to take care of this problem, and then all of the groups that were working in it would lose their enthusiasm and we would end up with having no grassroots safety organizations throughout the country which now exist, and then instead of having 50,000 deaths, we will probably have 100,000? That is what worries me.

I again want to compliment our chairman for the statement he made this morning that we have to go into this carefully and we have to determine the facts. You are giving us the facts. It is encouraging to me to have a witness that knows what he is talking about.

Mr. BUGAS. Thank you, sir.

The CHAIRMAN. Mr. Kornegay.

Mr. KORNEGAY. Thank you, Mr. Chairman.

Mr. Bugas, you testified that 22 States, I believe, have mandatory inspection laws.

Mr. BUGAS. There are actually 21. Kentucky has passed a motor vehicle inspection law, but it will not be effective until 1968.

Mr. KORNEGAY. Do you have any figures on how many States have passed automobile inspection laws which have been repealed?

Mr. BUGAS. No; I do not, sir. We can get that, but I don't have it here.

(The information requested appears in letter from AMA, p. 338.)

Mr. KORNEGAY. Have you made any study of the fact that so many States do not have automobile inspection laws?

Mr. BUGAS. As to why they do not?

Mr. KORNEGAY. In other words, with this being the problem that it is throughout the country, I am sure you are concerned, and very much concerned, with highway safety throughout the country. This is not just in Washington, but in every community and in every town in the country. It is amazing to me if inspection laws are worthwhile why every State does not have an automobile inspection law.

Mr. BUGAS. The adoption of inspection laws, of course, is coming about more slowly than we would like. We would like to have adequate and properly enforced inspection laws in every State. I presume the reason that some States, including my own, Michigan, for example, do not have a motor vehicle inspection law is because some individuals, voters, in the States consider it a nuisance. They think it would be a nuisance to go into an inspection station, whether it be State-owned or privately owned and State-regulated, and pay their dollar or two dollars and have the inspection made.

I presume that many legislators in the States are sensitive to this vocal reaction, although we do not agree that it is a sound reaction. However, we do all we can to urge. We think that motor vehicle inspection is so sound in concept that it is inevitable. We hope the Federal Government, whether this safety bill passes or not, actively

encourages the States, in the most effective fashion possible, to adopt these vehicle inspection laws.

Mr. KORNEGAY. I think your basis or reason is very correct. In my own State of North Carolina, we had an automobile inspection law back in the late 1940's. It was in existence for about 2 years, the time between one legislature that enacted it and the next legislature repealing it. They did it because we did not have public support for it.

Some of the reasons were that the lines were long and it took time to get your car inspected, you would hear rumors about this particular crowd getting an inspection sticker for \$5, or as Mr. Macdonald said, if you agreed to buy your gas at this place they would give you the sticker or keep you in stickers. There was that kind of thing which was not conducive to public support.

I agree with you that that, in and of itself, does not invalidate the reasons for the inspection laws. But I raise the point simply to get your ideas, or the ideas of any of your associates, as to what we in the Congress can do to bring about a better climate, a better atmosphere, one that will encourage good inspection laws throughout the country. The State is the ideal governmental instrumentality to operate the inspection laws, I think.

Mr. BUGAS. We agree.

Mr. KORNEGAY. As you probably are aware, we have just put in another law in my State of North Carolina and it hadn't been in effect a week until the papers were filled, with a little hanky-panky here and a little mismanagement there. That is up to the State to straighten out and do something about. I am confident that they will. The government immediately took action.

I don't think it is the answer or panacea to the problem, but this certainly weeds out a lot of the old traps that ought not to be on the highway. At the same time, it is not an answer in itself, because the automobile that is in perfect condition today, tomorrow may be a little bit out of whack.

Mr. BUGAS. Let me make just a couple of brief points.

In the safety bill, particularly in title III, but to some extent in title II, there are provisions that we think would be used effectively by the Secretary to induce States to put in motor vehicle inspection.

First of all, in title II you have provision for research. We think that proper research would show unmistakably that motor vehicle inspection, properly administered, is a good thing. That is No. 1.

Title III provides for the Government to offer strong incentives to the States to adopt safety programs, including motor vehicle inspection. We think that in those two sections of the bill you have mechanisms for advancing the cause of motor vehicle inspection, which we consider only one facet of a very complex problem, but an important one.

Mr. KORNEGAY. On page 15 of your statement you describe in some degree of detail the industry proving ground facilities, 19,000 acres of land, 215 miles of private road systems, and so on. My first question in connection with that statement is this:

Is that a cooperative effort among the automobile manufacturers, or is this the combined facilities of all?



Mr. BUGAS. They are the combined figures. This is not a cooperative effort. Each corporation has its own.

Mr. KORNEGAY. They each have their own facilities?

Mr. BUGAS. Yes, sir.

Mr. KORNEGAY. And they use their own facilities?

Mr. BUGAS. Yes, sir.

Mr. KORNEGAY. When Secretary Connor testified before the committee, a portion of his statement related to the need for testing facilities. As I recall it, he was expressing the desire to spend a considerable amount of money on the part of the Government to acquire testing facilities.

Do you see any reason, or do you know of any reason why, if some legislation was passed along these lines, there could not be cooperation between the Government and industry in connection with these proving grounds? In other words, why build so many proving grounds if we have enough now that could be shared on some sort of mutually satisfactory basis?

Mr. BUGAS. Mr. Kornegay, you have gone to the heart of a suggestion that we made in one part of our proposal, and that we feel very strongly about. We think that the Secretary should be given authority to engage in proper research. But before you put a lot of money into complicated, very expensive facilities, which also require manpower, you should look around and see whether adequate facilities and manpower are not available either in industry or in public institutions.

Without question, many of our facilities in the individual companies could be utilized by the Secretary. I know that we in Ford, and I speak in this respect only for Ford, would make our facilities available to the extent that we could, compatible with our going about our own job. We would make them available for research under the direction of the Secretary.

I think it would be unwise to spend money unless it were necessary.

Mr. KORNEGAY. This is what I am getting at. Of course it is necessary, and we understand that, but to go out and just have the Government own their facilities, when you have, or perhaps other companies have, adequate facilities, it seems to me like that would be wasteful.

Mr. ROGERS of Texas (presiding). The time of the gentleman has expired. Did you have another question?

Mr. KORNEGAY. I have another question, Mr. Chairman.

Mr. ROGERS of Texas. If it is quick, you may ask it.

Mr. KORNEGAY. You were telling about your problem with the windshield wiper and I wanted to say, since we have such an illustrious group here this morning, that they have not heard anything until they hear my story.

I admit the genius of the automobile industry, because under their warranty system—so many miles with a warranty on it—I have an Oldsmobile that performed very well until it got right beyond that point. Then I was reminded of the old poem, you will recall, the "One Horse Shay," written by Justice Holmes, I believe. With the wheel bearings, the shock absorbers, the alternator, and the steering system, too, I have been in the shop all week trying to get that fixed.

But the point is, and this is not in criticism, that that could happen under the inspection system. I could have had it inspected last week

and it could have passed, but this week it is not drivable. So we can't rely entirely on the inspection system.

Mr. ROGERS of Texas. Mr. Harvey.

Mr. HARVEY. Has anyone from the Secretary of Commerce's office or any of the other Departments come out and looked at the private facilities of any of the companies for testing, research, and so forth?

Mr. BUGAS. I am sure they are generally familiar with what we have. I know various people, from GSA and so forth, have been through all our facilities, and I am sure that some individuals in the Department of Commerce know.

Mr. HARVEY. I am sorry I wasn't here this morning for a reading of your full statement, but I have looked over pages 53 through 63, wherein you set forth certain suggested improvements in title I. I can assure you that this committee will consider those improvements very, very carefully.

I gather from reading this that you feel that the Federal Government does have the role in setting these standards of safety and the standards of engineering, with the suggestions for improvements that you have made?

Mr. BUGAS. We believe the Government has a role in this area, very definitely so.

Mr. HARVEY. That is your position today in this hearing?

Mr. BUGAS. That is correct. We think that the Federal Government has a very important role in setting of standards provided they bring the States into the picture, with the vast body of experience and knowledge that has been built up in the States by setting standards for a long time—provided further that there are appropriate criteria laid out for their setting of standards—and provided that the industry is encouraged to cooperate in initiating standards and complying with them after they have been proposed to the Secretary.

We think these safeguards would be satisfactory as far as we are concerned.

Mr. HARVEY. This is all in the field of engineering, and the engineering of automotive safety that we are talking about. Of course, you would agree, I think, that the Federal Government already has a role in the engineering of highways, in improving highway safety in that regard.

Mr. BUGAS. Very definitely, yes.

Mr. HARVEY. Those of you in the automotive industry, I am sure, realize that even the engineering is only one small aspect of the overall safety problem, and that some of the others which have been touched on here today in the field of enforcement and in the field of education are probably equally or even more important, many experts would say.

Mr. BUGAS. We agree that these things are very important; yes, sir.

Mr. HARVEY. Let me ask you, Mr. Bugas, or any other members of the panel, if you would care to comment, what should be the Federal role in your judgment in the field of enforcement? Here we already have the States involved.

In your judgment, do you feel that the States are doing an adequate job? I am not referring only to vehicle inspection, but I am referring to violations generally of what is the uniform vehicle code but what is not necessarily enforced throughout the 50 States as the uniform vehicle code.



Do you feel that the Federal Government has a role in the field of enforcement as well as safety?

Mr. BUGAS. We don't think that the Federal Government should get into the active field of traffic enforcement. We think that basically this must be a job for the States. A Federal force that would go out and enforce the traffic laws and regulations in the various communities would face an almost impossible task. I personally would also object to it as a matter of principle.

As far as State enforcement is concerned, you find good enforcement, you find bad enforcement, you find superior enforcement, depending upon the locality. These can be judged on objective factors. It can be improved everywhere, and should be.

I think that the Federal Government has a role in encouraging the States, in suggesting programs concerning these various things, and in assisting the States. But the actual job of enforcement must stay with the States, in my view.

Mr. HARVEY. But there is no question that you feel the Federal Government does have a role also in encouraging them and in helping to improve their enforcement which you recognize as inadequate in many cases?

Mr. BUGAS. Very definitely. I agree that the Federal Government has a role in continuously encouraging the upgrading of the enforcement that must take place in the States.

Mr. HARVEY. Let's get to the problem of education for a minute. That is also one of the broad areas in the field of safety. Do you feel that the Federal Government has a role in the field of education?

Here, as I understand it, neither the States or the Federal Government are involved. Education in the field of highway safety is being done, by and large, by the organizations that Mr. Cunningham mentioned, the National Safety Council, various municipal safety councils, and, in some cases, State councils across the country.

These are dependent for the most part upon private support. Do you feel that the Federal Government has a role in the field of education?

Mr. BUGAS. The States already are engaged in driver education. I think this should be stepped up and continued in the States and should be encouraged to the extent possible by the Federal Government.

However, I think there is a very definite role for the private organizations of which Mr. Cunningham spoke. These should go ahead on a private basis, the National Safety Council, the Automotive Safety Foundation, and others.

Mr. ROGERS of Texas. The time of the gentleman has expired. Have you a short question?

Mr. HARVEY. No, Mr. Chairman. I thank you, Mr. Chairman.

Mr. ROGERS of Texas. Mr. Van Deerlin.

Mr. VAN DEERLIN. Mr. Bugas, isn't it possible that the automotive industry might achieve some manufacturing savings through uniform standards in the field of safety requirements rather than having to consider the possible legislation in this field by 50 individual States?

Mr. BUGAS. You are talking about the lack of uniformity in standards, I presume, if it were left entirely to the States? Is this what you are concerned with?

Mr. VAN DEERLIN. Yes.

Mr. BUGAS. This could create a problem that could affect manufacturing and, therefore, be an added cost. As I stated before, however, there has been an amazing uniformity in what the States have done thus far, and it has not caused us any great problem. Conceivably it could. However, provisions that we suggest, we think that there is merit in the Federal Government having the ultimate authority, provided we in the manufacturing area are brought in, that the States have a role, that criteria are provided for setting standards, and so forth.

Mr. VAN DEERLIN. When California imposed the requirement for smog counter devices that had to be attached after a certain date to all new cars sold in California, this, it seems to me, was something that might have been considerably less expensive if it had been a national requirement rather than just in California.

I assume this would be true.

Mr. BUGAS. Ultimately, of course, the Federal Government adopted, in effect, the standard that existed in California. It will cost us about the same to make, except that we will have to make it for all the cars.

Mr. VAN DEERLIN. Any requirement in California is tantamount to mass production anyway. We have enough cars registered in California to enable them all to be on the highways at the same time with only the front seats occupied.

Suppose Mr. Rogers' State were to be concerned over windshield wipers and established standards that would apply only in that State. This could quickly cause you some industrial problems, could it not?

Mr. BUGAS. If there were no Federal standards, only State standards, and five or six or seven States adopted that standard, it becomes a national standard for practical purposes anyway.

Mr. VAN DEERLIN. Wouldn't you assume that with the agitation—that is an unhappy choice of words—with the feeling that has been aroused nationally now in the matter of highway safety that there is going to be legislation?

I should think your judgment is quite sound here in hoping that it would be establishing national standards rather than leaving it to the action of 50 individual legislatures.

Mr. BUGAS. We think that with the provisions we have suggested there is considerable merit in having Federal standards. But the States must be brought in, and the States must be allowed to have standards of their own that they can enforce after the first sale, because that is when the car is being used. A standard does little good after that first sale unless you have a means of enforcing it. And in order to enforce it you have to have a State standard, in our view.

Mr. ROGERS of Florida. Would the gentleman yield?

Mr. VAN DEERLIN. I yield.

Mr. ROGERS of Florida. The fact is that this thing is in such a situation presently that you need uniformity the same as you have in the Negotiable Instruments Act. You have to have safety factors



throughout the United States because of your interstate travel all the time, the same as the negotiable paper.

Mr. BUGAS. Apart from the pressures and everything else, with the safeguards or provisions we have recommended, there would be merit in having uniform standards for the broad safety characteristics of each car across the country, in our view.

Mr. ROGERS of Florida. In the discussion of State standards, are these normally set by the State legislatures?

Mr. BUGAS. Generally speaking, yes. I think there are eight or nine States where the authority is delegated to an administrator.

Mr. ROGERS of Florida. I wonder if you have given thought to have the standards set by the Congress after the Presidential Commission, which I previously discussed, rather than having the Secretary set the standards. What is your feeling on that?

Mr. BUGAS. I would think, sir, that the setting of standards by the Secretary of Commerce is the kind of thing that the Congress would want to regard very closely. I would doubt, however, that the Congress itself would want to get into the standards-setting business in detail.

Mr. ROGERS of Florida. We have set standards in previous legislation, as I recall.

Mr. BUGAS. Yes, sir; you have. But here you are thinking of quite a number of standards, dynamic standards that are changing constantly. I would conceive it to be almost a full-time job for a session of Congress if you were to follow it to the extent it should be followed.

I think you would want to watch it very closely if you gave it to the Secretary and the States, of course. But I would rather doubt that you would want to get into the standards-setting business yourself.

Mr. ROGERS of Florida. Thank you.

Mr. YOUNGER. As I understood, you recommended that the Congress set guidelines.

Mr. BUGAS. Yes, sir. That is a different matter, Mr. Younger, one that concerns us very much. We are suggesting that you set as clear guidelines as you can that the Secretary must follow in setting standards. This is one of the things I had in mind when I said you must regard what is being done. This would be a provision we recommend strongly.

Mr. ROGERS of Texas. Mr. Pickle.

Mr. PICKLE. Thank you, Mr. Chairman.

Mr. Bugas, when this measure was before this committee some 6 weeks ago, I think I was one of the first to point out that I did not think the act was calling on the States to take advantage of the years of experience in safety, design, research, and construction that they should have, particularly with respect to title III.

I notice you make reference to title III as the ideal situation between the Federal Government and the States. I submit the States may have some different ideas from what you may have as to how it would operate. But similarly, with regard to title I, I agree with

you, that the Government should take advantage of the experience that the industry has.

Now you come forward with a positive position that you think that the Secretary ought to set these standards, using your phraseology, "under appropriate guidelines and procedures."

Mr. BUGAS. Are you referring to the position that we took before the Senate?

Mr. PICKLE. Yes, your statement shown this morning and in your news release.

What would be your idea of "guidelines and procedures"? How would that operate?

Mr. BUGAS. Let me use my presentation as a point of reference. I can speak better if I refer to this and I will elaborate, with your permission.

Mr. PICKLE. Please do make reference to the material. I was here when you read most of your statement this morning so I am somewhat familiar with it.

Mr. BUGAS. When the Secretary finally decides to set a standard, after going through the procedure of consultation with the States, et cetera, he should not have in mind such words as "adequate" and "unreasonable," that are subject to application depending upon the attitude of the individual. He should look instead at such things as, "Will this standard that I am going to impose be worth the cost that is required to put it into effect?"

Obviously, if he puts a standard into effect requiring some safety device that costs \$500, it is going to do limited good because fewer people will buy the new cars and more people will hang on to old, wornout cars. He ought to take a look at the balance of cost versus benefits. This is one type of criterion. He should also take a look at whether this standard is practicable in the light of existing engineering and manufacturing knowledge, whether we can design and mass-produce devices that will enable us to meet this standard. Most certainly this looks to us like a reasonable criterion.

Another thing we have suggested here is the time that he allows for this standard to take effect. If he puts a standard in today, for example, and says, "You meet this in 6 months," and it is impossible for us to do so, obviously the procedure is wrong.

This is the sort of criteria we are talking about.

Mr. PICKLE. These are three instances you have given: cost versus benefits, is it practicable, and will there be time given to put it into effect?

Mr. BUGAS. Yes, sir.

Mr. PICKLE. To me, that sounds good but it really doesn't say a whole lot. I think we could say that for almost any kind of legislation, anywhere. It seems to me like you are somewhat begging the issue.

I want you to tell me specifically what are the guidelines that the Secretary would use, or your committee, and who is going to say what will be the procedure and who will set the guidelines? Do you have any suggestions for this? Perhaps we have to, in the committee or in the Congress, say one, two, three, four. But, if you say we should



use guidelines such as cost, practicability, time to put it into effect, it is rather a generality.

(For information requested see letter from AMA, p. 338.)

Mr. BUGAS. To us these things mean something, Mr. Pickle, and we think that a Secretary with technical personnel assisting him would find them meaningful. But let's suppose they are not. Let's suppose these criteria are written into the bill and the Secretary thinks he is applying them correctly but we disagree. Then we have a judicial procedure that allows us to question his judgment. With judicial review we would have an opportunity to prove that he has not followed the guidelines, if that is what we think.

In other words, there is more adequate procedural safeguard against error or misjudgment.

Mr. PICKLE. Are you saying that the industry, then, would be satisfied if the Secretary adopted guidelines and procedures that would cover these three points, that would satisfy the industry?

Mr. BUGAS. No. We have suggested these as three but they are not all-inclusive. This is a concept.

Mr. PICKLE. I would think it would be not all inclusive because you haven't much more than just stated a few generalities at this point.

Mr. BUGAS. I attempted to explain earlier that in this presentation we have not put down language in detail. We have introduced concepts and tried to be helpful.

Mr. PICKLE. You said in your statement that you thought it would be agreeable to the industry that if the Secretary would adopt those guidelines or procedures, I assume, as recommended by the VESC, that this would be satisfactory to your industry. Is this correct?

Mr. BUGAS. The guidelines we are talking about here are separate from the VESC, if I understand your question correctly.

Mr. PICKLE. I don't think they are. If they are, tell me.

Mr. BUGAS. The guidelines we are suggesting here are the guidelines that the Secretary would use, separate and apart from any consultation or any negotiation that he had with the VESC.

Under our concept, he would go to the VESC and say, "I would like to have a standard," or the VESC would come to him and say, "Here is a standard." It can flow either way. If he goes to the VESC, he might say, "I would like to have you consider a standard for the crashability of the front end of a car," as one example. There has been considerable talk of that. He may give the VESC a limited time, 6 months, 8 months, a year, whatever he wants as long as it is adequate. If the VESC comes up with a standard in that period of time, he would then consider it in the light of the criteria that we have suggested you provide in the bill.

Meanwhile, we do not envision that we, in the industry, would be precluded from giving the Secretary our views. We think that he would be anxious to have them. We would see that he got them. But in any event, he would have the ultimate authority to set the standard.

If we thought that he had not set it according to the criteria or that it was an improper standard, we would take issue with him in a judicial proceeding.

Mr. PICKLE. I am hopeful that the States and the industry would say specifically how they think this bill ought to be amended to spell out what your guidelines in procedure are. I don't see anything but generalities now.

If you adopted these three general guidelines, then I assume you will have some kind of committee or group that will be advising the Secretary. The gentleman from Florida, Mr. Rogers, asked you about it earlier and you said there might be a possibility of an advisory committee.

I would want to point out to you that this committee passed a bill last session, the high speed ground transportation, in which we put in the bill an advisory committee to be working with the Commission. That was back in August. That committee has not been appointed yet. Here it is 7 months later, the act has been put into effect and the money has been largely spent. It has not been appointed yet.

Mr. BUGAS. We haven't proposed a committee.

Mr. PICKLE. I understand that. I am just saying to you that if we did set up such a committee, I think this committee better take into consideration the fact that we better make the act dependent, before any funds are spent, upon the appointment of such an advisory committee. This is certainly a weakness of the other measure.

Mr. ROGERS of Texas. The time of the gentleman has expired, unless he has a short question.

Mr. Mackay?

Mr. MACKAY. Thank you, Mr. Chairman.

Mr. Bugas, you have a friendly questioner here, because I have been riding Mercurys and Comets since 1947 and they have been safe at every speed.

Mr. BUGAS. Thank you very much, sir.

Mr. MACKAY. Also, to spare the committee and everybody here, I have prepared 28 questions which I would like to ask the Automobile Manufacturers Association to respond to, and also each company here to the extent it would be willing to do so in its individual capacity. That will shorten this discussion considerably.

(The response of AMA appears in a letter dated May 18, 1966, p. 338.)

(Mr. Mackay's document referred to above, follows:)

A MEMORANDUM AND WORKBOOK ON THE TRAFFIC SAFETY ISSUE IN THE 89TH CONGRESS

(Prepared by the Office of James A. Mackay, Member of Congress, 4th District, Georgia, April 22, 1966)

MEMORANDUM

Traffic safety legislation has exploded as the major *new* concern of the second session of the 89th Congress despite the fact that no reference was made to this subject in the 1964 platforms of either major party.



It now appears likely that Congress will enact the most significant legislation in this field in the 75 year history of the motor vehicle and since Secretary of Commerce Herbert Hoover called what was termed a "life and death" conference 42 years ago on traffic safety. 20,000 Americans died that year in traffic accidents.

For two generations there have been many conferences, periodic committees and meager results. Although there has been a decline in the death rate the extent of death, disabling injuries and property damage has increased until last year when 49,000 men, women, and children suffered violent death; three million were injured; and direct economic losses exceeded eight billion dollars.

Last December was the most murderous month of all with a death toll of 4,940. The National Safety Council reports casualties were up six percent in January and February of this year. There is no reason to believe that this upward spiral will be arrested and reversed unless there is an unprecedented effort to establish a truly national traffic safety program with much more specific assignment of responsibilities than now exists on federal and state governments.

Our bill to establish a National Traffic Safety Agency has bipartisan support in the House with 30 co-sponsors and in the Senate with 15 co-sponsors. It emphasizes the *national* rather than the federal role and its stresses leadership and concert of action rather than a punitive approach.

One month after the introduction of our bill the administration introduced its bill. Both seek the same objective. Both have strong points. Two committees of the House and three committees of the Senate have completed or are in process of hearings from which new insights have come.

The Senate is about to begin marking up a traffic safety bill. On the 26th of April the House Committee on Interstate and Foreign Commerce will resume its hearings and will hear from an array of important witnesses.

My staff has prepared a workbook setting forth the unresolved issues with the thought that the statement of these issues in question form with an indication of the position of our bill and the administration bill would be of value in speeding decision on these unresolved issues.

We members of this Congress are fast approaching the "moment of truth" on what we shall do about traffic safety.

Ten years ago Congress failed to act although Rep. Kenneth Roberts of Alabama conducted thorough hearings which brought out substantially the same information we have before us today, except that now our losses are greater. Since those hearings were concluded more than 400,000 of our fellow citizens have perished on the streets and highways.

This year we should not fail because there is growing awareness of what has happened and why it has happened. Public opinion has sensed that whatever we may have done in the past, no matter how favorably evaluated, we have not done enough. Our people sense that we are paying an awesome, and in many cases, needless, toll of life, of happiness and treasure because of our failure to act.

Traffic accidents are the greatest killers of our youth from ages 15 to 25 and the fourth greatest killer of Americans of all ages.

As a member of the sub-committee on Public Health and Welfare of the Committee on Interstate and Foreign Commerce, I have become convinced that the substantial reduction in traffic accidents would contribute more to the public health and welfare of our citizens than almost anything. The subject deserves top priority.

JAMES A. MACKAY,  
*Member of Congress.*

*Listing of key unresolved issues in the administration's Traffic Safety Act of 1966*

GENERAL PROVISIONS

Points in question	Provision in administration bill	Provision in national traffic safety agency bill cosponsored by 45 Members	Recommendations of Congressmen and of witnesses before congressional committees
1. Should an agency be specified in legislation with explicit responsibility for a uniform and safe traffic environment?	1. No provision.	1. Provides for an agency. Sec. 4(a).	
2. Should an administrator be appointed by President?	2. No provision.	2. Provides for such a post. Sec. 4(a).	
3. Should a periodic consumer traffic safety bulletin for motorists be published on a regular basis?	3. No provision.	3. Provision included. Sec. 5.	
4. Should Secretary be required to submit comprehensive report to President and Congress?	4. No provision.	4. Provision included. Sec. 11(a).	4. Favor: Senators Ribicoff, R. Kennedy, Nelson; AAA; Nader; Steglitz.
5. What should be the source of funds for this bill?	5. Highway trust fund, by transfer of equivalent of 1 percent auto excise tax from Treasury for beautification and traffic safety; any deficit supplied by Treasury. Secs. 115, 202, 303, and 304; Commerce and Treasury request to Congress Mar. 21, 1966.	5. General Treasury. Sec. 13.	5. General Treasury; National Association of Counties; AAA on 2-year basis. Highway trust fund even if thrown out of balance; National League of Cities. Delete beautification from traffic safety financing; AASHO.

TITLE I. MOTOR VEHICLE SAFETY STANDARDS

Points in question	Provision in administration bill	Provision in national traffic safety agency bill cosponsored by 45 Members	Recommendations of Congressmen and of witnesses before congressional committees
1. Should all motor vehicles, including trucks, be included?	1. Excludes trucks. Sec. 101(c).	1. Includes trucks. Sec. 3(a).	1. Include trucks; James Hoffa.
2. Should setting of performance standards for manufacture of cars be mandatory?	2. Permissive. Sec. 102(a).	2. Mandatory. Sec. 6(a).	2. Mandatory: Senators Ribicoff, R. Kennedy, Harris, Nelson; Nader; Hoffa; AAA; Physicians for Automotive Safety; Steglitz; Fairchild-Hiller; Gikes. Industry committee with voluntary compliance: AMA.
3. How soon should standards be set?	3. No sooner than 2 years. Sec. 102(a).	3. Within 6 months. Sec. 6(a).	3. Within 1 year: Senators Ribicoff, Harris, R. Kennedy, Nelson; Nader; Hoffa; Steglitz. Adopt interim standards immediately: Physicians for Automotive Safety; AAA; Gikes.
4. How soon should the issued standards be effective?	4. Not before 6 months nor later than 2 years after issued. Sec. 102(b).	4. On date specified by Secretary. Sec. 6(b).	4. Not later than 1 year after issued: Senators Ribicoff, R. Kennedy, Harris, Nelson; Nader; Steglitz; Gikes.
5. Should existing informal industry standards be formalized?	5. Informal standards acceptable if are adequate and there is compliance. Sec. 102(a).	5. No provision.	5. Delete provision: Senators Ribicoff, R. Kennedy, Harris, Nelson. Formalize informal standards: Steglitz.



6. Should standard setting function of GSA for Federal cars be transferred to new agency?	6. No provision.....	6. Transfers GSA function. Sec. 10.....	
7. Should there be sanctions on the manufacturers for noncompliance?	7. Car not meeting standards cannot be manufactured or sold; \$1,000 penalty for each violation. Secs. 107 and 108.	7. No provision.....	7. Strengthen sanctions: Nader.
8. Should cars be federally certified if they comply with Federal standards?	8. No provision.....	8. Car federally certified for labeling and advertising purposes if prove compliance with Federal standards. Sec. 7.	
9. Should manufacturers be required to notify consumers or Government of defects and fix defects?	9. No provision.....	9. No provision.....	9. Notify Government: Senators Ribicoff, R. Kennedy, Harris, Nelson; Nader; Physicians for Automotive Safety; Notify consumer: Senators Mondale, Magnuson, Bayh, Bible, Clark, Gruening, E. Kennedy, R. Kennedy, McGovern, Metcalf, Morse, Pell, Randolph, Tydings, Yarborough, Muskie, McGee.
10. Should the agency have specific authority to sponsor construction of test car?	10. Implied authority. Sec. 104.....	10. Implied authority. Secs. 4(b) and 5.	10. Specific authority: Senators Ribicoff, R. Kennedy, Javits, Harris, Nelson; Nader; Physicians for Automotive Safety; New York Senator Speno; Gikes; American Trial Lawyers.
11. Should the funds for this title be increased?	11. Fiscal year 1967—\$3,000,000; fiscal year 1968—\$6,000,000; fiscal years 1969-1972—\$9,000,000 each year. Sec. 115.	11. Cost to be determined in committee. Sec. 13.	11. To construct test car: increase \$3,000,000 for fiscal year 1967 to \$13,000,000. Senators Ribicoff, R. Kennedy, Javits, Harris, Nelson.

## TITLE II. TRAFFIC ACCIDENT AND INJURY RESEARCH AND TEST FACILITY

1. Should the construction and operation of facility or facilities be made mandatory?	1. Permissive authority for construction and operation. Sec. 201.	1. Requires establishment of research center to examine every facet of traffic accident phenomena. Sec. 4(b).	
2. Should the funds for this title be increased? See items 7-10 under title III for issues on Federal research programs.	2. \$3,000,000 for planning facility and sufficient funds for construction. Secs. 202 and 203.	2. Cost to be determined in committee. Sec. 13.	2. Funds for construction should not have open-ended authorization: AASHO.

*Listing of key unresolved issues in the administration's Traffic Safety Act of 1966—Continued*  
TITLE III. HIGHWAY SAFETY

Points in question	Provision in administration bill	Provision in national traffic safety agency bill cosponsored by 45 Members	Recommendations of Congressmen and of witnesses before congressional committees
1. Should criteria for a qualified State traffic safety plan be defined? 2. Should specific projects for State programs be required in legislation?	1. Does not set forth criteria..... 2. Projects generally described. Sec. 301.	1. Sets forth 6 general criteria. Sec. 8(d). 2. Projects generally described. Sec. 8(d).	2. Include all roads and highway lighting; Institute of Traffic Engineers. Specific higher allotment for driver education and inspection of cars; Ribicoff. Specific higher allotment for all phases of driver education; National Education Association. Add community traffic safety programs with 90 percent Federal funds to cities and counties; National Association of Counties. Require accident investigation training; Stieglitz and Gikes.
3. What method of setting and administering standards for State programs should be adopted?	3. Secretaries work with other Federal agencies in setting standards. State programs should meet minimum standards. Sec. 301.	3. Secretaries set standards. State programs must meet minimum standards. Sec. 6(a) and 8(d).	3. Highway design standards should remain in State-Bureau of Public Roads effort; AASHO. Secretaries set standards with State and local governments and professional organizations; International Association of Chiefs of Police and Institute of Traffic Engineers.
4. What should the definition of "State highway department" be?	4. Departments, boards or officials charged by law to administer any part of State highway safety program. Sec. 305. 5. 75 percent on basis of population and 25 percent under Secretary's discretion. Sec. 301.	4. State designate agency qualified to administer traffic safety program. Sec. 8(d).	
5. What formula should be used for the distribution of funds to States?		5. Ratio: Amount of gasoline sold in State bears to total gasoline sold in United States. Sec. 8(b).	5. Distribute 25 percent by area; AASHO. Professional police advise Secretaries in disbursing 25 percent; International Association of Chiefs of Police.



6. Should funds for State grants under this title be increased?	6. Fiscal year 1967—\$40,000,000; fiscal year 1968 and 1969—\$20,000,000; fiscal year 1970 and 1971—\$80,000,000; fiscal year 1972—\$100,000,000; Sec. 303. 7. Secretary authorized to conduct research. Sec. 301.	4. Cost to be determined in committee. Sec. 13.	6. Increase funds: Rubicoff, National Education Association, AASHO, National League of Cities.
7. Should research, development, and testing by Federal Government be authorized?	7. Secretary authorized to conduct research. Sec. 301.	7. Secretary authorized to conduct research. Sec. 5.	
8. Should the funds for Federal research under this title be increased?	8. Fiscal year 1967—\$10,000,000; fiscal year 1968—\$20,000,000; fiscal year 1969—\$25,000,000; fiscal year 1970—\$30,000,000; fiscal year 1971—\$35,000,000; fiscal year 1972—\$40,000,000; Sec. 304. 9. No provision.	8. Cost to be determined in committee. Sec. 13.	
9. Should the collection, interpretation, and publication of data statistics and other information on traffic safety be specified in law?	10. Not public except for research with individuals not identifiable. Sec. 307.	9. Provision included. Sec. 5.	
10. Should Federal accident reports be made public?		10. No provision.	10. Make public: Nader, American Trial Lawyers. Findings of fact be public record but conclusions only for research: R. Kennedy. Not public: Cornell Laboratories.

POSITION STATEMENT ON UNRESOLVED ISSUES<sup>1</sup>*General provisions*

1. An agency should be specified by Congress and charged by it with the responsibility of building a uniform and safer traffic environment. Proponents of the "no agency" position say this will give the executive branch greater "flexibility". We argue that there must be a "focus of leadership and action", and draw an analogy with the FAA which has had notable success in air safety. We do not argue that the agency has to do everything that might be done but that it could bring an end to the diffusion of responsibility and, in some instances, overlapping of effort.

2. A traffic safety administrator should be designated by Congress to personify and fix responsibility for traffic safety. Our bill provides for his appointment by the President as is now the case with the FAA administrator, although the mode of selection is not so important as the designation of the office. Again we seek to end diffusion of effort and further fix responsibility for the provision of national leadership in a field which is much more complicated and difficult than that facing the FAA administrator.

3. A periodic consumer traffic safety bulletin for motorists should be published on a regular basis. Although not required by law the FAA publishes such a bulletin nationally and in my region which alerts and informs pilots as to vital matters affecting safety. For example, motorists are often unaware of acutely accident prone traffic locations, or new discovery of causes of accidents or resulting injuries, or what procedures to follow in the case of injury.

4. An annual report to Congress, comprehensive as to casualties and important developments touching on the traffic safety environment with recommendations is sorely needed. The specific assignment to gather accurate data on traffic accidents would bring an end to the present situation where we are confronted with conflicting and incomplete data. The Bureau of Public Roads gets its data from the National Safety Council, a private agency, and the National Safety Council states that not all jurisdictions cooperate in furnishing data.

5. The general treasury is the logical source of funds for our traffic safety program, not the Highway Trust Fund. The Administration proposes to use the Trust Fund as a mechanism for disbursing funds which would be transferred from the general Treasury. It is anticipated that these funds, the equivalent of a 1% auto excise tax to finance both the beautification program and traffic safety, will not be sufficient and that additional funds will have to be appropriated. There is no indication as to which program has priority over the funds available from the 1% transfer. If, as President Johnson has said, traffic safety is second only to national defense in importance, then traffic safety programs should be financed and budgeted along with other federal expenditures.

*Motor vehicle safety standards*

1. All motor vehicles, including trucks, should be included in the definition and enforcement of motor vehicle safety performance standards. Testimony already presented quoted a study indicating that trucks were involved in 39.3 per cent of all fatal accidents. An example of one problem that now exists: The failure to require a simple fifth wheel device on tractor trailers results in jack-knifing, the most murderous kind of circumstance. Failure to include trucks would continue the present diffusion of attention and effort and no case has been made for not including all motor vehicles under one agency.

2. The setting of motor vehicle safety performance standards should be mandatory. They are mandatory for all other transportation in interstate commerce and the results have been impressive.

3. Standards should be set within six months. They can be interim and fairly elementary standards until more data is gathered, conferences held with the auto industry and state officials, and a better understanding gained as to the nature and extent of standards necessary to protect our people.

4. Standards should be made effective within one year after they are set. It is obvious that new standards cannot be applied overnight. On the other hand, no case has been made for a period to exceed twenty-four months.

5. Existing informal industry standards should be formalized and would provide a good beginning for the definition of standards by law.

<sup>1</sup> These numbered statements match the points in question on the attached charts.



6. The standard setting function of the General Services Administration should be transferred to the Traffic Safety Agency and the Department of Transportation. Here again, there should not be diffusion of effort and confusion of duty.

7. Sanctions should not be placed on manufacturers for non-compliance until we have more experience and information. Contrary to the canard that the public is not interested in safety, the definition of recommended safety standards by the federal government and the certification of those vehicles that meet these standards, would have a profound influence on the consumer and would provide an incentive to the manufacturer to meet those standards.

8. Motor vehicles should be certified for compliance for the obvious reason that the consumer is in no position to make judgments that require engineering training. The motor vehicle is a complicated machine and the consumer should have this protection just as clearly as he should be protected from harmful drugs.

9. Manufacturers should be required to notify the traffic safety agency of defects which endanger human life when they are discovered and the agency should notify the public. Here again, is a development which demands attention but must be handled in a way that is fair to the manufacturer and the consumer.

10. The traffic safety agency should be authorized to fabricate motor vehicles for the purpose of testing and development of safety features. It should not attempt to build a prototype car if by this term it is suggested that the government get into the design of a car to which all others must conform. The government's role in design should be limited to safety performance only.

11. Funds for the development of motor vehicle safety standards as provided in the Administration bill appear adequate to a layman although no expert testimony on the amount necessary has yet been presented by the Administration.

#### *Traffic accident and injury research and test facility*

1. The construction of a research facility or facilities should be mandatory and should not be permissive. Congress should not give the executive branch authority not to do something that is so critical in relation to every other facet of our traffic problem. This is not to say that there must be a new physical establishment although there is little evidence that an adequate one exists. The point is that such a facility or facilities should be established and operated.

2. The funds recommended in the Administration bill for planning this facility appear to be adequate, although again no expert opinion has been presented by the Administration in support of this three million figure.

#### *Highway safety*

1, 2, and 3. General criteria for a qualified State traffic safety plan should be defined and definite procedures for eliciting the opinion of state officials in the formulating of such criteria should be provided. The naked phrase, "The Secretary shall determine" is a slap in the face of countless able state officials who must ultimately make the plan work, and the effort to develop a national traffic safety program can have much better chances if the state, local and private forces are brought into a working partnership to determine these criteria.

Conditions and structures vary from State to State and it would be impossible to cut the pattern to fit each one exactly. On the other hand the elements in the traffic safety picture are nearly the same wherever there are motor vehicles. It would therefore be desirable for legislation to attempt to designate these elements as explicitly as possible.

4. Just as the Federal diffusion of effort, lack of explicit assignment of responsibility, and low priority have contributed to our failures, so the states have failed to overhaul their own structures which have the same characteristics. The states do not have a focus of leadership, an explicit assignment of responsibility, or a high priority for traffic safety. The States should be required to designate one agency they deem qualified to administer the overall traffic safety effort in the state.

5. The formula for distributing grant-in-aid funds must necessarily be on some matching basis and it would appear that the case for 75% based on the amount of gasoline sold in each State and 25% based on the discretion of the administering official in the federal government is more supportable than for the 75% to be based on population. The correlation between gas sold and traffic flow should be closer than population and traffic flow.

6. Funds for grants-in-aid should not be projected for more than the next three years for the practical reason that there has been no expert testimony as

to the amounts required. Time and again it has become evident that we have not pulled together in one place available data and that we need more study in depth as to where tax dollars for traffic safety can be applied with the most positive results. We need to buy some brains and put them to work promptly and then legislate and appropriate later on the basis of positive findings.

7. Research, development and testing should be made mandatory by act of Congress. There are forces and there are individuals who take the easy way out and dismiss our awful losses by the use of cliches such as "the nut behind the wheel", the "crashproof automobile" and the "accident proof road". We laymen know that the traffic accident is most often a complex occurrence in a complicated environment and that research, development and testing can get results in this area as it has in others.

8. Funds for research need not be projected beyond three fiscal years. No expert testimony has been presented as to the amounts which could be used to good effect in the next biennium.

9. The public is entitled to have the results of the collection, interpretation and publication of statistics on traffic accidents.

10. Facts from reports of investigations by the Federal traffic safety agency should be made public. This right of the public is not incompatible with the right of those doing the investigation and collection of data from having to languish in courtroom corridors waiting on the trial of automobile damage suits.

CO-SPONSORS OF BILL TO ESTABLISH A NATIONAL TRAFFIC SAFETY AGENCY,  
APRIL 21, 1966

*House of Representatives*

James A. Mackay (D., Georgia)	H.R. 12548
Robert T. Ashmore (D., South Carolina)	H.R. 12553
Frances P. Bolton (R., Ohio)	H.R. 12921
James C. Corman (D., California)	H.R. 12786
John C. Culver (D., Iowa)	H.R. 12709
Harold D. Donohue (D., Massachusetts)	H.R. 12556
Charles P. Farnsley (D., Kentucky)	H.R. 13267
Sam M. Gibbons (D., Florida)	H.R. 12592
George W. Grider (D., Tennessee)	H.R. 12557
G. Elliott Hagan (D., Georgia)	H.R. 14345
John R. Hansen (D., Iowa)	H.R. 12550
Julia B. Hansen (D., Washington)	H.R. 12558
William D. Hathaway (D., Maine)	H.R. 12554
Paul J. Krebs (D., New Jersey)	H.R. 13475
Rodney D. Love (D., Ohio)	H.R. 12551
Richard D. McCarthy (D., New York)	H.R. 12900
Hervey G. Machen (D., Maryland)	H.R. 12559
Spark M. Matsunaga (D., Hawaii)	H.R. 12560
William E. Minshall (R., Ohio)	H.R. 13003
John E. Moss (D., California)	H.R. 12549
Abraham J. Multer (D., New York)	H.R. 12905
John M. Murphy (D., New York)	H.R. 13575
Edwin Reinecke (R., California)	H.R. 12561
Fernand J. St. Germain (D., Rhode Island)	H.R. 12674
William St. Onge (D., Connecticut)	H.R. 12552
William F. Ryan (D., New York)	H.R. 13488
James H. Scheuer (D., New York)	H.R. 13154
Russell Tuten (D., Georgia)	H.R. 12555
J. Irving Whalley (R., Pennsylvania)	H.R. 12802
Charles L. Weltner (D., Georgia)	H.R. 12562

*Senate (S. 2871)*

Gordon Allott (R., Colorado)	Daniel K. Inouye (D., Hawaii)
E. L. Bartlett (D., Alaska)	Gale W. McGee (D., Wyoming)
Birch Bayh (D., Indiana)	Lee Metcalf (D., Montana)
Alan Bible (D., Nevada)	A. S. Mike Monroney (D., Okla.)
Joseph Clark (D., Pennsylvania)	Joseph M. Montoya (D., New Mexico)
Paul Douglas (D., Illinois)	Frank E. Moss (D., Utah)
Ernest Gruening (D., Alaska)	Claiborne Pell (D., Rhode Island)
Vance Hartke (D., Indiana)	



WITNESSES SCHEDULED TO TESTIFY ON TRAFFIC SAFETY<sup>2</sup> BEFORE THE COMMITTEE  
ON INTERSTATE AND FOREIGN COMMERCE OF THE HOUSE OF REPRESENTATIVES

*Tuesday, April 26, 1966*

Representative John W. Wydler, New York  
Representative John R. Hansen, Iowa  
Representative Seymour Halpern, New York  
Senator Gaylord Nelson, Wisconsin  
Automobile Manufacturers Association:  
John S. Bugas, Vice-President, Ford Motor Company and Chairman, AMA Safety  
Administrative Committee  
Accompanied by:  
George Russell, Executive Vice-President, General Motors Corp.  
Harry E. Chesebrough, Vice-President, Chrysler Corp.  
Bernard A. Chapman, Executive Vice-President, American Motors Corporation

*Wednesday, April 27, 1966*

James R. Hoffa, General President, International Brotherhood of Teamsters  
Lawrence Schalise, Attorney General of Iowa  
Ralph Nader  
Joseph Kelner, President, American Trial Lawyers  
Howard Pyle, President, National Safety Council  
Russell I. Brown, President, Institute for Highway Safety  
James W. Hall, Jr., Independent Garage Owners of Georgia  
W. W. Marsh, Executive Vice-President, National Tire Dealers Association  
Dr. John D. States, Society for Automotive Medicine

*Thursday, April 28, 1966*

John Moore, N.Y. State Department of Motor Vehicles  
Dr. Paul Gikas, Physicians for Automotive Safety  
John Connally, Governor of Texas  
George Romney, Governor of Michigan  
William I. Steiglitz, Engineer  
J. B. DeRuner  
John C. White  
Jeffrey O'Connell, Professor of Law, University of Illinois  
Cornell Aeronautical Laboratory  
Norman Bennett, U.S. Merchandise Mart  
Joseph Alcarese, Martin Company, Baltimore  
David Coan, ADA  
Automotive Service Industry Association

*Tuesday, May 3, 1966*

Dr. Philip Lee, Assistant Secretary for Health of H.E.W.  
Heinz A. Abersfeller, Commissioner, Federal Supply Service, General Services  
Administration

*Wednesday, May 4, 1966*

United Automobile Workers  
Mr. Schultz, Fort Wayne, Indiana  
Karl E. Smith

WITNESSES WHO HAVE TESTIFIED ON TRAFFIC SAFETY 1966

*Senate Commerce Committee*

Senator Abraham Ribicoff, Connecticut  
John T. Connor, Secretary of Commerce  
Senator Clifford Case, New Jersey  
Heinz A. Abersfeller, Commissioner, Federal Supply Service, General Services  
Administration

<sup>2</sup> This list is subject to some modification because additional days of hearings are now being scheduled for the first week in May.

Dr. Philip R. Lee, Assistant Secretary of Health, Education and Welfare, for Health  
 Howard Pyle, President, National Safety Council  
 William I. Stieglitz, Engineer  
 Senator Robert Kennedy, New York  
 Dr. James D. Gatts, Manager, Life Sciences and Space Environment Department, Republic Aviation Division, Fairchild-Hiller  
 Dr. Seymour Charles, President, Physicians for Automotive Safety  
 Norman Key, Executive Secretary, National Commission on Safety Education, National Education Association  
 Ralph Nader  
 Ira G. Ross, President, Cornell Aeronautical Laboratory, Inc.  
 Joseph Kelner, President, American Trial Lawyers Association  
 John S. Bugas, Vice President, Ford Motor Company and Chairman, Safety Administrative Committee, Automobile Manufacturers Assoc.  
 Senator Jacob Javits, New York  
 George K. Kachlein, Jr., Executive Vice President, American Automobile Association  
 James R. Hoffa, General President, International Brotherhood of Teamsters  
 Senator Edward Speno, New York State Senator  
 Howard Graffey, M.P., House of Commons, Ottawa, Canada  
 Frederick Young, Member, Ontario Provincial Parliament  
 Vince Steffen, Speaker, Iowa House of Representatives  
 John O. Moore, Division of Research and Development, New York State Department of Motor Vehicles  
 Virgil M. Exner, President, Virgil M. Exner  
 Dr. Paul W. Gikes, Research Director, Physicians for Automotive Safety

*Senate Public Works Committee*

John T. Connor, Secretary of Commerce  
 Charles E. Shumate, President, American Association of State Highway Officials  
 Herbert Bingham, Director, Tennessee Municipal League  
 Senator Clifford P. Case, New Jersey  
 Major General Louis W. Prentiss, Executive Vice President, American Road Builders Association  
 Howard Pyle, President, National Safety Council  
 Quinn Tamm, Executive Director, International Association of Chiefs of Police  
 Senator Abraham Ribicoff, Connecticut  
 Bernard F. Hillenbrand, Executive Director, National Association of Counties  
 Charles F. Schwan, Director, Washington Office, Council of State Governments, Representing Clifford P. Hanson, Governor of Wyoming and Chairman, Subcommittee on Highway Safety of the National Governor's Conference  
 Ron Shendrov, Former Leader, Committee for Teenage Driving  
 Edmund R. Ricker, Vice President, Institute of Traffic Engineers  
 John S. Bugas, Vice President, Ford Motor Company and Chairman, Safety Administrative Committee, Automobile Manufacturers Assoc.  
 Tom Paul, Mell Richman Associates  
 Ralph Nader

*House Interstate and Foreign Commerce Committee*

Representative James A. Mackay, Georgia  
 Representative Leonor Sullivan, Missouri  
 Representative Richard D. McCarthy, New York  
 Representative Charles E. Bennett, Florida  
 Representative Ed Reinecke, California  
 Representative Frank J. Horton, New York  
 Representative William D. Hathaway, Maine  
 John T. Connor, Secretary of Commerce  
 Robert Marshall, Associate Executive Secretary, National Commission on Safety Education, National Education Association

*House Public Works*

Alan S. Boyd, Under Secretary for Transportation, Department of Commerce  
 Representative James J. Howard, New Jersey  
 Representative Teno Roncalio, Wyoming



E. M. Johnson, Chief Engineer, State Highway Department, Mississippi  
George K. Kachlein, Jr., Executive Vice President, American Automobile Association

Major General Louis Prentiss, Executive Vice President, American Road Builders Association

Bernard H. Hillenbrand, Executive Director, National Association of Counties

Mr. MACKAY. I want to state my own personal pleasure that the industry has given further consideration to its position stated in the other body. I want to be sure that I understand your testimony correctly when you say it is the position of the Automobile Manufacturers Association that safety performance standards should be established for the manufacture of all motor vehicles in interstate commerce by the Federal Government, and that the unresolved issue has to do with the method of arriving at those criteria.

Mr. BUGAS. I think that is a fair statement.

Mr. MACKAY. And, second, you agree with title II, that there should be research and testing on the total traffic accident phenomena.

Mr. BUGAS. With just one proviso, which I am sure you are familiar with, that the Secretary take a look at existing facilities.

Mr. MACKAY. Yes. And, third, that there should be real national leadership to encourage the State safety programs through a system of grants-in-aid.

Mr. BUGAS. Yes, sir.

Mr. MACKAY. One quarrel that some of us have had with the administration bill is that titles I and II are permissive. They say the Secretary is authorized to carry out certain duties. Would you have any objection to language that says that he shall?

Mr. BUGAS. That the Secretary be directed to issue standards?

Mr. MACKAY. Yes.

Mr. BUGAS. That is, when he finds the need?

Mr. MACKAY. Yes.

Mr. BUGAS. No.

Mr. MACKAY. Back to the title I, the fixing of these standards, I am heartedly in accord with your view that the States ought to be brought into collaborative discussion on what the standards are, but it is true that the VESC has been concerned mostly with uniform criteria not having to do with vehicle safety features?

Mr. BUGAS. Well, the VESC has been really in existence for a very short time, Mr. Mackay, 2 or 2½ years, and in my own view they have had organizational problems. They have come up with one standard. They have a great potential, because they are made up of many men who are very qualified in the field of standards.

Mr. MACKAY. They are really not in the business of designing and building automobiles?

Mr. BUGAS. No, sir.

Mr. MACKAY. There is nobody employed by the State of Georgia that is required to have any competence about safety standards in automobiles.

Mr. BUGAS. But they can be of great assistance in the formulation of standards.

Mr. MACKAY. I agree with you, and I think that should be done and I will support it. But I think we ought not to kid ourselves by thinking that back in the States there are some people who know how to design an automobile.

Mr. BUGAS. That is correct.

Mr. MACKAY. I sat in 15 legislative sessions before I came up here, and the fellows who were arguing for safety standards were the fellows that wanted to sell specific items such as turn signals. They would meet you in the hall and say, "Let's make the manufacturers do it."

I think we ought not to suggest that there is this competence back there.

Mr. BUGAS. We agree with you.

Mr. MACKAY. It is on the total criteria of the whole safety program.

Mr. BUGAS. Yes, sir.

Mr. MACKAY. The other point is that the bill is, again, permissive. The Secretary is authorized to gather data. Isn't it true that a lot of people are being unfairly accused by changes unsupported by competent data?

Mr. BUGAS. We definitely think so.

Mr. MACKAY. Don't you think we ought to require the Government to get us competent data?

Mr. BUGAS. Yes, sir.

Mr. MACKAY. Can anybody do that except the Federal Government?

Mr. BUGAS. We think they must take the leadership on this. They can coordinate the activities of a lot of other institutions and associations, but they must take the leadership.

Mr. MACKAY. I hope you will help us to write a tougher bill. I don't think to authorize somebody downtown to do something means that it will necessarily happen.

I would like to submit these questions to you.

Mr. Chairman, I thank the witness for presenting his testimony.

I would like to say this, Mr. Bugas: As a lawyer, I hate to see anybody accused of anything unless it is supported by evidence. This is the frustrating experience that I have had; I have heard a lot of opinions unsupported by evidence.

Yesterday I was present when Mr. Nader made these charges and the Catholic father who presided made a great point of the fact that the Automobile Manufacturers Association had an explicit invitation to appear on this panel before a competent group of citizens.

My experience in politics is that absenteeism when people are discussing your business is dangerous. I hope you can steel yourselves to get on the platform with your critics so that we can hear some real head-on collision about this issue.

Mr. Nader raised an interesting point about the seat belt. The push button, as I understand it, is just for convenience. It doesn't add anything to a seat belt, does it?

Mr. BUGAS. Probably not.

Mr. MACKAY. That is, in terms of its functions.

Mr. BUGAS. That is right, except that it encourages people to use it more than the others.

Mr. MACKAY. But it doesn't increase its function. You see, as a layman, I would like to have a referee that could check this thing out. Mr. Nader has made some flat charges that you have had complaints, that you have been testing them, that they do flip open. Of course, you have said this is without foundation.

It seems to me that it would be helpful if the Federal Government had an agency to which you could refer this controversy rather than just have charge and countercharge.



Mr. BUGAS. I think you would not quiet the Naders in that way. You were present this morning, sir, when I made the statement with respect to Nader?

Mr. MACKAY. I simply say that it was frustrating to me in a public meeting not to have the industry represented, and I felt that the industry would have come out better if it had been there and made the kind of rebuttal that you made. The chairman made quite a point of the fact that your group was not represented.

Also, I realize you are testifying on the administration bill. There are 45 bills that would like to draw a tighter focus on the assignment of responsibility in a traffic safety agency.

I would hope that you can study our counterproposals in any case.

Mr. BUGAS. Mr. Mackay, we want the issue to be safety. We don't want the issue to be Mr. Nader and his establishment. Therefore we have not taken head-on issue with him except in the case of this seat belt. I think we would do the cause of safety a great disservice if we were to make the Nader establishment the issue, rather than safety. This could very easily be done.

Mr. ROGERS of Texas. The time of the gentleman has expired.

Mr. Mackay, did you want those 28 questions included in the record?

Mr. MACKAY. Yes.

Mr. ROGERS of Texas. Mr. Farnsley?

Mr. FARNSELEY. Mr. Chairman, may I offer this document I referred to this morning to the gentlemen?

Mr. ROGERS of Texas. If they wish to accept it.

Mr. BUGAS. You would like to have our reasoned comment on your bill, I believe, Mr. Mackay. We will certainly provide it.

Mr. ROGERS of Texas. The Chair recognizes the gentleman from Kentucky, Mr. Farnsley.

Mr. FARNSELEY. I am advised there is no rule on my spending my time telling you how to run your business, if you don't mind.

The first thing I had to do was to get the lady off the front of the Cadillac. Since I have been here, I haven't passed any laws but I have been trying to learn more about this.

I have had this study made by the Library of Congress which has such statements that the Northwest Thruway of Chicago deaths were 0.74 per million vehicle-miles whereas nationally it is 2.3.

In Virginia, they put lights in 10 places and the deaths went down 90 percent.

The police chief of Gary, Ind., testifies that a good street light is as valuable as a good policeman and a lot cheaper.

Only in recent years have case histories proved this. For the entire Nation this means the saving of 1,000 lives annually plus an economic saving estimated to be \$2 billion a year.

It says in this study it costs less than 1 percent to put the lights on the highways if you do it when you build the highways. I don't know if these are superhighways.

What I was talking about this morning on the one-way streets is if you get your experts to study the experience of accidents on one-way streets and highways, and on illuminated streets, to the present standards of the Society of Illuminating Engineers, if both of these things are done, with the present automobiles, the present drivers, the present

enforcement, with everything just like it is, you will find that those two things would reduce accidents 80 or 90 percent.

What we are asking you to do, I have finally figured it out, is this: You can go over Niagara Falls in a barrel but you have to be lucky and have a very good barrel. Driving on our highways is like going over Niagara Falls in a barrel. Sure, you can make safer cars and have better drivers. But the big thing is the highways and the streets. They are unsafe at any speed.

I only have three nice young ladies who are busy answering letters and I have one mimeograph machine, but you men have a lot of them. I can't do anything about the Bureau of Public Roads. I am not going to get a chance to tell you this again because I am a lameduck.

The way to get the Government off your back is to get on the Government's back. Get on the Bureau of Public Roads. They will listen to you. Get them to light these highways. Find out what they have done in Virginia and California with one-way highways. People just don't get killed on them and don't get hurt.

If you light them, they don't get hurt. I am laboring the point, but this is it. This is where the thing can be done and done fast. Listen to me because I know what I am talking about. This is my last chance.

My time is up. Thank you.

Mr. BUGAS. Thank you very much, sir.

Mr. ROGERS of Texas. Mr. Bugas, the bells have rung and we must go over and vote. I presume you want to get away. If we could conclude this afternoon, if we recessed until 4:30, we could come back and be through before 5 o'clock.

Mr. BUGAS. We are at your disposal, Mr. Chairman, whatever you wish.

Mr. ROGERS of Texas. We will recess at this time until 4:30.

(Whereupon, at 4:10 p.m., a recess was taken until 4:30 of the same day.)

Mr. ROGERS of Texas (presiding). The committee will come to order for further consideration of the pending business. The Chair will recognize the gentleman from Massachusetts, Mr. Macdonald.

Mr. MACDONALD. Thank you, Mr. Chairman.

Sir, one of the things I didn't have a chance to ask you about in the first go-around was the question of speed in the automobiles that are produced by the group that you are representing. I had indicated a little bit about Ford being interested in the racing aspect of cars, and you said that that was very helpful as far as improving engines and so forth are concerned, but it was never clear in my mind how that aided you in any safety measures outside of perhaps the value of a rollover iron bar over the front seat.

Do you want to comment on that?

Mr. BUGAS. Since our earlier discussion, Mr. Macdonald, I have talked with some of our technical people. One of them has handed me a sheet of paper listing the things that we at Ford—speaking only for my own company on this—think we learn more about from racing.

He has listed disk brakes, low-profile tires, rubberized fabric fuel tanks, windshield wiper blades. And then he has in parentheses "tighter blades have been developed." He lists photo stress. That is



the technique for quick evaluation of stress and strain properties of structures, for example, color indications of stress on connecting rods under strain.

Mr. MACDONALD. I won't have you list all those. I will just take your word that you feel that they do contribute to safety. My time is limited and that is why I am going on a little more quickly than I would like to.

Someplace in your statement, and since it is fairly voluminous I can't put my finger on it at the moment, you outline in great detail the types of development work done at Ford's plant. How does that correlate with racing? Do you follow my question?

Mr. BUGAS. I don't, quite.

Mr. MACDONALD. You point out that after a car has been approved, is off the drawing board and is off the line, you go through many checks with it and you have a whole division that does nothing but test out equipment. You have a number of people employed in this area; is that correct?

Mr. BUGAS. Yes, sir.

Mr. MACDONALD. If you are doing all that, how much money do you spend on that, or is that also a trade secret?

Mr. BUGAS. At Ford Motor Co. in 1965 we had 7,200 people and we spent approximately \$70.7 million in only those quality control activities related to safety, insuring that the car gets to the customer in condition for safe operation.

Mr. MACDONALD. If you spend that much money and have that number of people doing it, why is it such a public relations affair to demonstrate to the public that the Fords are the fastest cars on wheels?

Mr. BUGAS. By participating in racing, the company doesn't seek to prove to everyone that Fords are the fastest on wheels. Among other things, we want to learn how to make better structures, better pistons, better connecting rods, better tires, and so forth.

Mr. MACDONALD. If this were the case, wouldn't you race stock models?

Mr. BUGAS. We have raced stock models.

Mr. MACDONALD. The ones that I have been watching on TV aren't any stock models.

Mr. BUGAS. We stretch a point, I am sure, in order to call a car a stock model.

Mr. MACDONALD. I would say it is a pretty elastic stretch, too.

Mr. BUGAS. Perhaps.

Mr. MACDONALD. My point is, and I am not trying to belabor the point, that you spend all this money on quality control—

Mr. BUGAS. This is one of the areas that I mentioned.

Mr. MACDONALD (continuing). But on the other hand, you spend a lot of money on racing cars. My point is that you have pointed out that all fatalities usually have other causes. I say that in my judgment, from the reports I have seen, in the most fatal accidents, speed is a factor as well.

Mr. BUGAS. No, this is not the case, sir.

Mr. MACDONALD. It is not?

Mr. BUGAS. No, it is not the case. As a matter of fact, there are more accidents, and I presume this includes fatal ones, that occur at

low speeds than at high speeds. The accident curve and the fatality curve increase as you come down from 50 miles an hour. The data show that.

Mr. MACDONALD. You say that there are more accidents at low speeds than high speeds, fatal accidents?

Mr. BUGAS. Yes. The incidence of fatalities in accidents above 65 miles an hour is higher, but that doesn't mean that there are more accidents and fatalities, only that the proportion of fatalities is larger. When you have an accident at a higher speed, you are more liable to have a serious or fatal accident. But you don't necessarily have most of the fatal accidents at high speeds. That is what the data tend to show.

Mr. YOUNGER. If the gentleman will yield, on that same subject we find something new and interesting in California. We have had a law passed out there that if you go at a low speed on the freeways and you are holding up six cars, then you are in violation and they can arrest you. So they have treated this question there because they have had a lot of accidents on the expressways due to slow driving.

Mr. BUGAS. There are some expressways that have speeds of 80 miles per hour and many have 70 for the speed limit. Usually with those high limits, you have a minimum speed limit, too. For instance, the road that I drive home on every night has a 45 to 70 limit.

Mr. MACDONALD. If Mr. Younger will yield back the floor, I would like to say if there are not accidents on those freeways in California, the incidence of heart attacks must be very high, because I have driven on some of those freeways and I always thank the good Lord when I am safely at my destination.

But I won't dispute the gentleman in his statement on California, that there are more accidents at lower speeds than higher speeds.

Mr. YOUNGER. I didn't say there were.

Mr. MACDONALD. The witness did. The word gentleman is rather elastic. The word applies rather equally here.

Mr. BUGAS. Here is a rather interesting piece of information. This chart shows that 50 percent of the fatal accidents occur below 40 miles an hour, and a little over 80 percent occur at less than 60 miles per hour.

Mr. MACDONALD. Whose statistics are these?

Mr. BUGAS. This comes from "Accident Facts," a publication of the National Safety Council.

Mr. FARNSLEY. If the gentleman will yield, that is deaths per 100,000 miles, or how do you figure it?

Mr. BUGAS. This takes all fatal accidents in a given period of time. I presume this is 1964. This simply shows, Mr. Farnsley, that in accidents having fatalities, fatal accidents, 82 percent occurred when the car was going less than 60 miles per hour.

Mr. FARNSLEY. What percentage of the driving is done at less than 60 miles per hour?

Mr. BUGAS. This I can't answer. I don't know.

Mr. FARNSLEY. The figures would be no good if you don't have that.

Mr. BUGAS. I was trying to be responsive to Mr. Macdonald's earlier question.

Mr. FARNSLEY. I understand what you are trying to do; you are trying to help.



Mr. MACDONALD. I quite agree.

Mr. BUGAS. No, I am really trying to help you, Mr. Macdonald. I am not trying to be defensive.

Mr. MACDONALD. I was wondering what the average speed on the ordinary Ford, and I know you have the Galaxie and I guess you go on down from there—

Mr. BUGAS. We go across. We don't like to say we go down in any of our cars.

Mr. MACDONALD. Would you tell me if I am mistaken that the average Ford has a capability of doing on the highway 100 to 120 miles per hour?

Mr. BUGAS. Again, I think it depends on which car and what engine you have in a car, but a Galaxie can go up to 100 or 110 miles per hour. A Thunderbird will go 110.

Mr. MACDONALD. I am sure they can go actually faster than that, but I will accept your figures. If the speed limits, as you indicated, in most places is 70 miles per hour, or in some places on freeways is 80 miles per hour, why does the car have to have a capability of 110 or 120 miles per hour?

Mr. BUGAS. Mr. Macdonald, I suppose people completely knowledgeable on the subject could dispute whether it ought to be 100 or 110, but it is generally agreed that in order to maintain a 70-mile rate of speed on the highway you must have an engine that is capable of going substantially faster than that. You cannot run an engine at its maximum output with any degree of durability. That is No. 1.

No. 2, passing ability on a road is a very definite safety factor. There are a great many data to substantiate this. Passing ability depends upon reserve horsepower.

Mr. MACDONALD. I have seen the ads on TV. I have seen those ads as well. But don't you think that the average person purchasing a car has the Casper Milquetoast attitude that maybe he is a 120-pound weakling but when he gets behind the wheel of a car and he is literally a giant, he can go faster than anybody, he can pass anybody, and he becomes something that he isn't when he is just walking around the streets?

Isn't this a factor in human psychology, that not only Ford but all of the manufacturers appeal to this, that they can direct appeal to this?

Mr. BUGAS. There is no question but that some people like to speed, Mr. Macdonald.

Mr. MACDONALD. Why cater to this type of person?

Mr. BUGAS. Because they want to buy our cars, many of them.

Mr. MACDONALD. They want to buy your cars because you have the fastest car?

Mr. BUGAS. No, they want to buy cars with that high horsepower.

Mr. MACDONALD. You are representing the industry now, and I am trying to disassociate you from Ford. Why do automobile manufacturers have this accent on speed when in the average event speed means danger?

Mr. BUGAS. We have an accent on performance. I would not agree with you that we are currently putting accent on speed alone. It is accented only insofar as it relates to performance and is evidence of good performance.

Mr. MACDONALD. We are quibbling with words now. Performance means the wheels go around.

Mr. BUGAS. That is part of it.

Mr. MACDONALD. And that the car will respond to acceleration.

Mr. BUGAS. That is part of it.

Mr. MACDONALD. We are talking about the same thing. What I want to know is why the automobile manufacturers, if they are really interested in helping us develop a law, why the automobile manufacturers do not all get together and say, "We will build a safe car. We will build a car that will not be able to exceed the maximum, that will not be able to go more than 80 miles per hour?"

I have a teenage son and a teenage daughter as well. There are times when my son comes home that I silently in my bed am very glad he is home because I know he has been out driving a car. Younger people, especially, speed, and in my judgment speed leads to many fatal accidents.

I don't care what figures you have there, but I don't think you can disprove that statement.

Mr. BUGAS. Mr. Macdonald, you have indicated a couple of times that you seem to question whether we are interested in safety.

Mr. MACDONALD. I am not saying that, sir.

Mr. BUGAS. Yes, but a moment ago you implied that. If this means that you are questioning our basic motives and our motivations, I wish to tell you that we deeply resent this. We are interested in safety. We are attempting to be helpful.

Mr. MACDONALD. If you will let me interrupt you, this is exactly why I interrupted you. I am not questioning your motives or the motives of the automotive industry.

Mr. BUGAS. Your words seem to indicate this.

Mr. MACDONALD. What I am saying is wouldn't it be a helpful thing if all automobile manufacturers got together and decided not to put out a car that would exceed the ordinary speed limit, which would be, say, 80 miles per hour? Wouldn't that be helpful?

Mr. BUGAS. This would be a mistake.

Mr. MACDONALD. Why?

Mr. BUGAS. Because a number of highways allow you to drive at 80 miles per hour and in order to drive at 80, you have to have reserve horsepower, or your engine will not last.

Mr. MACDONALD. As you have said, you are not an engineer.

Mr. BUGAS. Let me have an engineer speak on that.

Mr. MACDONALD. I will ask you this question and if you want to refer it to the engineer, you may do so. I will accept what you say as factual or else you wouldn't say it, you would not be here testifying before us if you didn't want to be helpful to this committee. I hope I make that abundantly clear, but if it is necessary to have a car that can do 120 miles per hour, what would your feelings be about a law, say, that a car driven should have a governor on it that can't exceed 80 miles per hour?

Mr. BUGAS. The problem would be as great as if you made the car so that it doesn't go above 80. May I bring out another point? If you have traveled the highways very much you see a multitude of trailers, at least in the western part of the country and at vacation time.



You have to have cars with extra horsepower to pull those trailers at a moderate speed. Mr. Macdonald, we are catering to what the public feels it wants and needs. We are not in a position to tell the customer what he wants. He tells us.

Mr. MACDONALD. I agree with you 100 percent. I will finish with this observation. I agree with you 100 percent, the public wants speed. But you help create the demand for speed by your advertisements and in many other ways. You help create the demand for speed. The public wants it. You see to it that they get it.

I point out that I think this is one of the factors that goes into having as many fatalities as we do have on the highway. It isn't your only job in life to give people what they want. It would seem to me that one of your jobs is to give the people what they can handle in order that they can be safe on the highways. I think a reduced-power engine would be one of the answers.

Mr. ROGERS of Texas. The time of the gentleman has expired.

Mr. Younger, have you any further questions?

Mr. YOUNGER. I have no further questions, but I will say to my good colleague from Massachusetts, he will have the opportunity to put an amendment to the bill if he wants to provide a governor on the cars. But I agree wholeheartedly, and I think the chairman can testify to this for they tried the governor in Texas—that when you try to pass a car and have a car coming at you and you can't get out of the way because you have a governor on your car, you will wish that it was not there.

Mr. BUGAS. That is correct.

Mr. YOUNGER. I thoroughly agree that it would be a mistake to try to establish any kind of a standard like a governor because in my opinion you would be creating more accidents than you are preventing.

I would like, however, for the industry to get through the State organizations a better line of statistics as to what really does cause the accidents. Mr. Cunningham said that Kansas City has some. I think I would like to see some of their statistics. But, from these accidents, we ought to be able to tell how many were caused by blow-outs, or how many of them are caused by mechanical failure, or how many were caused by icy roads, or from other causes.

So far in our hearings we have had no information of that kind which is reliable. Maybe it is not available. I don't know. But I thought the police reports on accidents gave such information.

Mr. BUGAS. Mr. Younger, this is one of the great gaps in the whole traffic safety system. I am sorry to tell you that meaningful statistics in most of these areas simply don't exist.

Congressman Mackay, in a brief discussion here, pointed this out as one of the great concerns that he has. This is one area where we in the industry believe strongly that the Federal Government can and should make an enormous contribution to the entire traffic safety problem. It can provide the leadership. There are bits of data and scraps of analyses and research being generated in many places, but it isn't cohesive, it doesn't fit together, it isn't coordinated.

Someone must do this job. The industry cannot. We do some of it and even finance others through the Automotive Safety Foundation and the National Safety Council, but we cannot do the whole job.

This is truly a governmental job in our view. The Government must do the job, utilizing all the safety research forces that exist.

Mr. YOUNGER. It is certainly something we should have. Some time ago when we passed a Federal bill establishing a central location for reporting of all drivers who had lost their licenses, or been convicted of an accident. We prevented these men who had lost their licenses in one State from going to another State and secure a license.

Now we do have a way. I think you are right, that probably we can and must get the information that we need on accidents.

That is all.

Mr. ROGERS of Texas. Mr. Mackay.

Mr. MACKAY. There are just two things I would like to speak to. One is a little further development concerning the seat belt issue that came up yesterday. As I said a while ago, I felt unhappy at the public meeting of a public organization to be on the panel on which the chairman kept alluding to the fact that this association was not present. It was there that Mr. Nader did make the charge, Mr. Bugas, that two of your companies were furnishing faulty seat belts.

I was further bewildered this morning when I read in the Washington Post the statement of the Chrysler spokesman, that they had never considered this type of seat belt for the reason that the push-button belt defeats the purpose of the seat belt.

You can see how confused this leaves the general public.

Mr. CHESEBROUGH. May I speak on that? I don't know who the Chrysler spokesman was. We find no record of who it was. I can say to you that that is not a correct statement.

Mr. MACKAY. It seems that auto safety is right now in the bull-session forum in this country rather than in the hands of people who are professionally qualified to look at it from the public standpoint. The auto industry can only look at part of the phenomena.

The charges were so serious that I certainly understand why you came back with an immediate response to it. But as a layman, I would like to feel that as critical an item as the seat belt is, it could be tested by the Government as to whether or not it was serviceable for the purpose for which it is sold.

The other statement that appears in this morning's paper stated that this met the standards of the Department of Commerce. Were you referring to the Bureau of Standards? I didn't know the Department of Commerce had any standards on seat belts.

Mr. BUGAS. There is actually, I believe, a Federal law on seat belts.

Mr. MACKAY. Did they promulgate standards?

Mr. CHESEBROUGH. There is a Federal standard law on seat belts that came out of your committee.

Mr. MACKAY. Well, I just joined this committee. Does it say anything about buckles?

Mr. CHESEBROUGH. It covers the whole belt assembly in stalled, including the buckle.

Mr. MACKAY. Do you know, for example, whether the Government has ever tested this?

Mr. CHESEBROUGH. No, I do not know. This would be up to the Secretary of Commerce, and the Bureau of Standards would be in a position to do the testing. I don't know whether they have or not.



I can tell you that the State of California does a lot of testing on belts and they have tested these.

Mr. MACKAY. I do not want to belabor that except to say that I think the American public now has had somebody make a charge against a seat belt and we do not have anyplace to turn in our State, certainly, or in the National Government, to go and say, "Is this safe?"

Mr. CHESEBROUGH. You could go to the Bureau of Standards, sir, because you have a Federal statute which establishes Federal regulation and the Bureau of Standards would be the people to evaluate it.

Mr. MACKAY. Here, again, we find this confusion that the Bureau of Public Roads has an Office of Safety, HEW has one, and the citizen is bewildered as to where to turn at this point.

I have been handed a release by Senator Ribicoff expressing his appreciation for the automobile industry's new position. He doesn't question the integrity of what you have said, but he said that he hopes it is not a tactical retreat. I went back and read your statement and as I see it, you are not equivocating on the point that the Secretary of the Department of Commerce or Transportation should have the power to promulgate standards, even if the VESC doesn't agree with it?

Mr. BUGAS. I read Senator Ribicoff's release, and I can only reach the conclusion that whoever wrote the release has simply not read our statement. There are three misstatements on the second page, three outright misstatements with respect to our position.

Mr. MACKAY. I didn't think that your position was fairly reflected there because you do not question the authority of the Secretary to have this final power.

Mr. BUGAS. Not at all, sir.

Mr. MACKAY. I quarrel with the administration bill and, in essence, with your position when it says that if he finds there is a need. I know there is a need for safety standards and I don't want to hunt through 50 States to find out what these standards are.

Mr. BUGAS. The Secretary wouldn't have to do that; he could determine the existence of a need in whatever way he wishes under our proposal. All we would ask him to do is to go to the instrument of the States, to the VESC, and if they don't come up with a standard acceptable to him in the time limitation he sets—we have been thinking of 6 months to a year at the outside—then he can go ahead and promulgate his own standard.

But we want the States brought into the consultative process. That doesn't come out in Senator Ribicoff's release, and there are two other misstatements in it. They obviously have not read our statement.

Mr. MACKAY. I fully appreciate your desire to bring the States into collaboration.

To pursue one point that Congressman Macdonald made that interested me a great deal, I have a 17-year-old boy with a heavier foot than I have. I was reading the ad of a light car that says, "You can get 420 horsepower in this model." As a parent, I don't want to see my boy driving an overpowered car.

I know this is a very sensitive area, but doesn't the relationship of horsepower to weight involve a safety standard?

Mr. CHESEBROUGH. That is a difficult question to answer yes or no. I need to know a little more about your understanding of vehicle power and vehicle weight performance characteristics.

Mr. MACKAY. Take the Comet. I said I was friendly to the Comet. I like the car. But you can get a Cyclone and my boy was pretty disappointed in me that I didn't get a Cyclone instead of a 120-horsepower car. It seems certain that at some point you pass the line where you have a safe vehicle for a 17-year-old boy to drive.

As Congressman Farnsley and I have been studying statistics up here, the traffic accident has become the greatest killer of American youth between 15 and 25. He said that he believes a boy would be safer in Vietnam than he would be driving around here.

You have been somewhat reluctant to answer that question, but I raise the question.

Mr. BUGAS. I am not being technical. I just don't know. And I am sure Harry isn't stalling; he is trying to understand the question.

Mr. CHESEBROUGH. There is no question but that you can pass the point of need in power. As to whether or not this power becomes unsafe, if the car is in the hands of a person using it wrongly, it does. An underpowered car would be unsafe in the hands of a person who uses it wrongly. That is why I can't answer it on a yes or no basis.

Mr. MACKAY. Mr. Chairman, the final question I would like to ask is this: I find a confusion of responsibility in the Federal establishment and also in my State government when it comes to a consideration of the total traffic accident phenomenon. I would be interested in the opinion of the automobile industry as to how they think we can bring this to an end, if it is possible, if there can be an FAA for traffic safety.

Mr. BUGAS. I think you are asking for considered opinion on an FAA-type agency; is that correct?

Mr. MACKAY. Yes, sir. I don't expect it now.

Mr. BUGAS. May we offer that after more deliberation? We will get it to you promptly.

Mr. MACKAY. Yes; and also on what points in the administration bill would you be willing to substitute the word "shall" for "may" or "is authorized". We think it is a weak bill that could result in nothing much happening. The charge has been made that the automobile industry wants a bill that doesn't require the Government to do anything. I don't believe that to be the position of the industry.

Mr. BUGAS. It is not. A cursory reading of our position will tell you this. This is our position: We want the Secretary to have power to issue standards. We want the safeguards. We want him to go through certain procedures that are not time consuming before he does so.

Mr. MACKAY. Thank you, Mr. Chairman.

Mr. ROGERS of Texas. The time of the gentleman has expired.

Mr. Nelsen?

Mr. NELSEN. Thank you, Mr. Chairman.

I note on page 23 you referred to, in addition to Federal aid for individual traffic safety programs conducted by the States, special incentive grants could be provided for States that develop all-inclusive



programs approved by the Secretary covering all important aspects of traffic safety.

Going back to my observation that I made this morning, it has been called to my attention that a survey has been made which indicates that a greater number of accidents occur on the secondary roads which may be very good roads but very poorly marked.

I know of one particular road where there is an unmarked dead end, and I have seen car after car go through and wind up in the farmer's field.

Fortunately, there is a fill across the ditch at this point, and a car can go across into the adjacent field.

What I wondered about is this: With all of the Federal moneys that we pour into the various States there would seem to be, in keeping with this paragraph, some justification in seeing to it that some of this money is made available for proper marking under uniform standards, nationwide.

Do you have a comment on that?

Mr. BUGAS. We couldn't agree with you more. There should be adequate, appropriate, and uniform marking, encouraged to the greatest extent possible by the Federal Government.

Mr. NELSEN. Another point I would like to emphasize which deals with driving is this: Repeatedly we run into incidents where there may be two youngsters of high school age or beyond that, of the same age, and perhaps similar families, each driving an identical car. Yet one is in one accident after another.

Obviously, the person behind the wheel is a great factor in what happens on the highways. I am sure you wouldn't disagree with that. I would like to also make the inquiry: Is there any correlation between the frequency of accidents and the age of the vehicle?

Do you have statistics on that?

Mr. BUGAS. I am sure we do. The accident rate with respect to the car?

Mr. NELSEN. Yes. Testimony this morning indicated that, after all, beyond the first sale the various States would then be in a supervisory position.

In this case, the older automobile could only be policed through State control. Is that correct?

Mr. BUGAS. This is correct.

Mr. NELSEN. Then I would also make the personal observation concerning horsepower that those of us who have operating machinery all know that if you underpower a machine, it doesn't last long. Those of us who live on farms that pull three plows behind a two-plow tractor do not have a tractor very long.

I think we will find the same thing is true in an automobile, that you need adequate power. I am sure there are times when you have superfluous power. I would assume mainly the responsibility lies with the driver, provided, of course, we do everything we can to provide safety factors in automobiles.

I have no further questions, Mr. Chairman.

Mr. MACDONALD. If you don't, would you yield to me?

Mr. NELSEN. I will be happy to yield.

Mr. MACDONALD. I am a little confused, sir. You said that you are stating the position of the automobile industry about this bill, is that correct?

Mr. BUGAS. Yes, sir.

Mr. MACDONALD. It was a similar bill, was it not, before the Senate?

Mr. BUGAS. Yes, sir; the same bill, title I.

Mr. MACDONALD. And you took a completely different point of view.

Mr. BUGAS. No, we have modified it. Our position today is changed but it is not a completely different approach. May I describe for you what the difference is?

Mr. MACDONALD. Of course.

Mr. BUGAS. In our appearance before the Senate, we took, as today, the position that the Federal Government should have a strong role, an important role, in the setting of vehicle safety performance standards.

The device we suggested at that time was that the Federal Government join the VESC itself on an equal partnership basis in order to set standards. At the same time, with permissive antitrust legislation, we asked that the industry be given the opportunity to establish and adopt standards, working in a fish bowl, with an outside chairman of national stature, and issuing regular and frequent public reports.

In this fish bowl it could be determined whether or not we were performing the job adequately. If we were not, action could be taken by the Federal Government at a specific later date, a year, a year and a half, or two years. This approach was criticized in the Senate hearings by some people who said, "Your proposition of having the Federal Government in the VESC is a stalling tactic. This requires the action of many State legislatures. You are trying to stall simply because you don't want Federal standards."

We thought about this and we saw that this observation may have some merit. We were also criticized for asking for permissive antitrust legislation. There we were accused of dragging a red herring across the trail. So we have dropped those two suggestions and we have come up with our current proposal that involves no delays.

As a matter of fact, our proposal could bring results faster than the provisions of title I. We visualize the Secretary as having the ultimate authority and duty to set Federal standards. We suggest he go to the States through the VESC, an organization that already exists, that needs no revision, and that is composed of experienced men. He should go there first and if he doesn't get action then he sets his own standards in the name of the Federal Government.

We also have stated, after conferences with Mr. Turner of the Antitrust Division, that the permissive type of antitrust legislation we felt we needed does not appear practical. So we are not asking for antitrust exemption. We are asking for words in the bill that would urge us as an industry to cooperate in a legitimate fashion under the existing antitrust laws. We are willing to take our chances under the rule of reason when we hold our internal deliberations.

We feel that with this approach we have removed the basic objections that some people had after we testified in the Senate.

Mr. MACDONALD. One last question: Is this committee safe in assuming that the automotive industry is not going to change its mind again after you hear criticisms from us, as members of this body?



We might criticize you in some other areas. Would you then go back and have one of these huddles again and come back in with still a third position? Whether you say so or not, your position today is considerably different than the reports of what you recommended to the Senate.

Mr. BUGAS. Mr. Macdonald, this industry is not atrophied. If we see merit in the position of an opponent, we have no hesitation whatsoever in agreeing with that position.

We are not dragging our heels nor are we capitulating to something we don't think is sound. We have proposed something we think will work.

Mr. MACDONALD. Can we rely on your group to hold to this position that you are now advocating today?

Mr. BUGAS. I am not guaranteeing that we will not change, of course not. If we see a better way to do it and one that will appeal to the Congress, of course we will change our position. That would represent progress.

Mr. MACDONALD. Of course it is progress. In my next campaign, if my opponent finds out I voted one way on the bill one year and a different way another year, I will give the same answer that you have just given me. I think it is a pretty good answer.

Mr. BUGAS. Will it get you votes?

Mr. MACDONALD. It confuses the issue to such an extent that he will be like myself. He will be groping for words to try to pin me down to a specific answer as I can't get one from you.

Mr. ROGERS of Texas. The time of the gentleman has expired.

Mr. Farnsley?

Mr. FARNSLEY. I will yield to Mr. Mackay.

Mr. MACKAY. I think the sooner we have before us suggested language, the sooner we are going to pin down some of these issues about which there is confusion.

Mr. BUGAS. We have had several requests, Mr. Mackay, and we will prepare the language. We have, of course, gone over the bill and have agreed on changes that we think will help find a solution to the problem. We think our recommendations will advance the cause of safety in the most constructive manner, Mr. Macdonald, whether you wish to believe it or not.

(The proposed bill presented by the AMA appears on p. 1199 (pt. 2).)

Mr. MACDONALD. I thank the gentleman.

Mr. MACKAY. Well, that was my question.

Mr. MACDONALD. If Mr. Farnsley will yield further, I would like to have the record very clear because, Mr. Bugas, you have referred to me several times as having such a suspicious nature, that I think you are not here to help us, but to get the kind of bill you want. I want the record to be completely clear that I believe that you, with all bona fide intent, are here to help this committee come up with a bill that you could live with, that will cut down on deaths on the highway.

I can assure you that that is what we want. I just think that you don't have to keep referring to me and thinking that I am suspicious of you. I am not at all suspicious of you. I know you represent the automotive industry. My questions to you are questions that I would ask because you are knowledgeable in this field.

On the other hand, just because you do represent the industry, it doesn't mean that you can't be mistaken as well.

Mr. BUGAS. That is correct, sir.

Mr. MACDONALD. What I wanted to pinpoint before I was interrupted by the chairman's gavel is whether or not you are going to change the position that you have taken in making recommendations to us to turn out this legislation. You have changed once.

Therefore, I am not suspicious to assume that it is possible that you might change again. I want to know if you are going to, because you did take a 180° turn after you left the other body.

Mr. BUGAS. Mr. Macdonald, let me try once more. This change in our position is not a tactic. Ours is not a negotiating position. It is something that we think is sound and that we can live with. We have no present intention of making another change. However, if someone can show us a better way to do the job, I'm sure you wouldn't want us to stick to a set position.

Mr. MACDONALD. We are trying to show you a better way.

Mr. BUGAS. Thank you, sir.

Mr. MACDONALD. Thank you, Mr. Farnsley.

Mr. FARNSELEY. I know you are tired, sir, and this is going to be very painless, what I am going to go into. I am going to be nice to you because I need your help. I know what to do about this and I don't have the power to do it.

I am trying to encourage you to consider a crusade to get safe streets and highways in this country.

In Louisville, and, as I say, I have been at this a long time, I love automobiles—I bought a car in 1962 and spent \$16,000 customizing it, and took it to the New York show and tried to sell it for \$20,000. But I didn't do any good. Mr. Donner told me if I had gotten started with a Riviera or a Cadillac, I would have made a lot of money and I would be on your side, sitting beside you instead of up here.

The first thing I did as mayor in 1948 was to take the ornaments off police cars because the chief of police told me they were cutting the people. I tried to get the police to use seat belts in 1948 and they wouldn't do it. But they are doing it now.

But we made our streets one way and it cost us just \$2,000 or \$3,000 on major streets. It reduced accidents very much, and made them much more pleasant to drive on. They increased capacity tremendously.

In the afternoon rush in Louisville, you can average 15 miles an hour in either direction. This is very unusual in any major city.

The fundamental fact that people cannot see in the dark never has penetrated to any of us. The American Optical Co. has ads running now that if you don't use sunglasses in driving in daylight you may lose 90 percent of your vision in driving at night. That is a lot of vision and it may be impaired for a week. My best friend and I have belonged on the Governor's committee for 15 years in Kentucky. He is on all the national committees that you can be on. The windshield takes out 10 percent of your light if it is clean, especially since it almost never is, and when the filling station man puts that detergent on them.

So, with your sunglasses and all, that is another 20- or 30-percent loss of vision.



The engineers will verify that if you put things going in opposite directions next to each other, sometimes there will be friction. It is not wise for the American people to put automobiles going in opposite directions on the same road when it is cheaper to have them going on separate roads.

Figures will prove that boys are safer in Vietnam than they are in the United States if they are driving around here all the time. It is a fact that things going in the opposite directions will run into each other, and people cannot see in the dark. It is inexpensive to straighten these things out.

You are right that you could save 10,000 lives with four-lane roads, but it is a lot cheaper to do it the other way and it is a lot better because you don't have the headlights coming at you. There are all kinds of advantages. It makes a city worth living in if you get your streets going one way.

I am laboring the point but it is an important point. I don't know anyone else laboring these points.

There is another thing we all forget and that is how many people we injure with automobiles. That is about 1,800,000 a year. We worry about chopping up dogs but we are also chopping up people. As I said, you can build a very good barrel for going over Niagara Falls, but we should quit trying to go over Niagara Falls.

Forgive me for making the same speech, but there it is. I have given you the clues. I am not big enough to do anything about it, and I don't think the Government will turn on it, itself.

If you write the book on highways being unsafe at any speed, I will help you with the circulation. I have a frank until the first of the year. I will send it out. I will send it to all the chiefs of police, the newspapers, radio, television, the heads of the sociology departments, mayors, bankers—bankers are supposed to have a lot of power. But I can't get through to them as you can. You hold more banks' money or they hold your money, and you have dealers. Please help.

Mr. BUGAS. Your remarks make a tremendous amount of sense to us except in one respect. At the moment, in this safety field, I don't know how much influence we have. That is very questionable.

Mr. FARNSLEY. Well, try on this particular point.

Mr. BUGAS. My remark was facetious, of course.

Mr. FARNSLEY. I don't know what any of us can do, but it is worth trying.

Mr. BUGAS. We should have more safe streets and highways.

Mr. FARNSLEY. You are working on standard things. But we have all overlooked these two things, lights and one-way streets.

Thank you so much, sir. You are very patient and I appreciate it.

Mr. BUGAS. Thank you, sir.

Mr. ROGERS of Texas. Mr. Bugas, for fear that the record might be misconstrued in view of my remarks about the windshield wipers this morning, I have owned a number of cars. Some have been good and some have been bad. I had one that you would blow the horn and the lights would go out. I had one in which my wife and I drove six children all over the Nation, and it was wonderful. If you think that is not a test for a car, we never did have trouble with it, and I think if that same test could be applied to all cars before we bought

them, it would work out all right. But I think we ought to get this in the right perspective.

You are in the automobile manufacturing business, and the other people here represent automobile manufacturers. When that car leaves our factory, you have no further control over it except what control you have over your distributors and dealers?

Mr. BUGAS. That is correct.

Mr. ROGERS of Texas. I wish it was possible for us to pass a law saying that if you engineered a car a certain way there wouldn't be any more deaths on the highways, but I know this is silly, and I think everyone else realizes this. I don't think anyone ought to be made the whipping boy in a procedure of this kind. I do think that the automobile manufacturers, and I think you agree with me, ought to be responsible for any defects in a product they sell to the American people.

Mr. BUGAS. Yes, sir.

Mr. ROGERS of Texas. And they ought to be answerable for it in damages the same as a private individual in the retail business who sells something that is damaging to a customer. If he warrants it, he ought to be responsible.

Outside of that, your responsibility does not go to the building of the highway, does it?

Mr. BUGAS. No, except in an advisory capacity. Sometimes we can help bring about a proper approach to highway building through our people who know about highways. We think, along with Mr. Farnsley, however, that the highways are an extremely important facet of the whole problem.

Mr. ROGERS of Texas. I understand that, and I think it is an obligation that the Congress has to see that these highways are built safer. As a matter of fact, very near this Rayburn Building there are some roads where the curves are graded to the outside. Why in the world this was ever allowed to happen, I don't know. Someone will have a serious accident on them sometime when there is ice on them. As Mr. Farnsley pointed out, those cars are not going in different directions.

When your engineering is completed, and you say we have a safe car and you put that car out, you warrant it. To me, unless we want to extend your responsibility further, I can't see where your responsibility extends as to what some mechanic does to that car or what some driver does to that car.

Mr. BUGAS. That is correct.

Mr. ROGERS of Texas. This is something that everyone has to work out and at. I am glad you made reference in your statement to the law enforcement. How long have you been with Ford?

Mr. BUGAS. Nearly 23 years.

Mr. ROGERS of Texas. You were out there in 1955 when the subcommittee was out there on traffic safety hearings. At that time, we heard the same identical testimony. We heard many of the same questions at that time. I know that there has been a lot of research and work done with regard to safety by the automobile people. Yet, the deaths on the highways have increased. They haven't decreased. I know we have a problem, but, as I say, I don't think we ought to have a



bunch of headline hunters. I understand there has been some headline hunting today by some people up here on the Hill with regard to some testimony in these hearings. We ought to get to the basic problem involved and try to solve it.

Would you be willing, Mr. Bugas, to underwrite the proposition that if you put a product out from the Ford factory, or General Motors, American Motors, or Chrysler, be willing to warrant that as against the defect insofar as the mechanism was concerned to the point that you would be willing to enter your appearance in any court in any place in this land where that car was sold, to answer for any defects insofar as the car, itself, was concerned?

Mr. BUGAS. I am sorry; I don't quite understand your proposition. We do have, as you know, a warranty on each car. Companies differ slightly in their warranty policy, but each company has a warranty on its cars.

Mr. ROGERS of Texas. I am concerned about the enforcement of the warranty. You see, a guarantee is not very good unless you can enforce it. It is very difficult to get these corporations into court in the different areas where a person alleges that the warranty has been violated.

Mr. BUGAS. Needless to say, we are made defendants in suits all over the United States. I think that normally the finding in damage suits hinges on whether or not we have failed to exercise due care in building the car. Where we think it is not our fault, obviously we go in and try to protect ourselves. Where it is obviously our fault we settle. In those cases where it is brought out that we were negligent, the plaintiff wins and we pay the damages. I don't know of any better way to enforce this than in the courts of law.

But we do have a responsibility. In the automotive industry we certainly have a responsibility to build safe vehicles and to warrant the workmanship. If through some negligence on our part we have failed to do this, then we must expect to have the plaintiff recover.

Mr. ROGERS of Texas. The point I am getting at is this, that you certainly are willing to stand behind your product insofar as defects are concerned, either in the billing of the product or in the engineering.

Mr. BUGAS. Yes, sir; we are.

Mr. ROGERS of Texas. Of course, if improvements can be made on this, you want to make them.

Mr. BUGAS. Yes, sir.

Mr. MACDONALD. Will the gentleman yield?

Mr. ROGERS of Texas. Yes, sir.

Mr. MACDONALD. That is the case at present, is it not? Mr. Rogers is talking about a future bill. What Mr. Rogers has just stated is the case presently?

Mr. BUGAS. Yes, and you don't need a law to enforce this.

Mr. MACKEY. It just occurred to me that I think we could keep this discussion down to earth if your AMA would furnish us a list of what you now consider elementary safety standards; that is, brakes, headlights, rear lights, seatbelts, that sort of thing, without any elaborate scientific statement of the strengths, but so that we would know the subject matter of what your industry thinks are safe features in the car. We have a lot of theoreticians that want a wraparound bumper, as you know.

Mr. BUGAS. May I draw the distinction between features and standards? Perhaps Mr. Chesebrough will want to elaborate. There are some 14,000 parts in a car, and most of them have some relation to safety. But when we talk of the kind of safety performance standards that the Federal Government should establish, these relate to characteristics of the car rather than to the details of the parts or of pieces of equipment that you put on the car.

In Ford Motor Co., we have what we call safety-related standards, nearly 2,000 of them. But these are not what we are talking about for Federal standards. I presume we would be considering something like 100 or 150 subjects for standards. Now we get into the technical area. I have to call on my friend, Mr. Chesebrough, to discuss that.

Mr. CHESEBROUGH. Mr. Mackay, I have given this some thought, but there have been pressing matters that have prevented me from thinking about it in as much detail as I would like. It seems to me it would be possible to define the required performance in the safety area, and I am being rather broad now when I say this, in probably as few as 20 standards. In this context, I would envision one standard that would prescribe the energy absorption characteristics of the front structure of a vehicle if it were involved in a forward barrier crash.

Another standard I would envision would provide some determination of the areas of critical visibility. I would envision a standard giving the basic performance requirements for a brake system. I would envision a standard on the restraint and internal configuration protection for passengers. It would not say that you must put  $x$  inches of something inside the car, but that you must build the vehicle so that an individual would not strike something with more than a certain force or more than a certain amount of acceleration. It is not a long list of things. This is the way the problem should be approached. It should not be approached by specifying the addition of particular items, or we may find ourselves locked into a rigid situation that would preclude advances as the technology moves forward.

Mr. MACKAY. If you could furnish a list of those areas of real safety concern, I think it would bring a lot of this discussion down to earth.

(The information requested appears in a letter from the AMA, p. 338.)

Mr. CHESEBROUGH. Mr. Chairman, may I comment about the warranty?

Mr. ROGERS of Texas. Yes. Let me yield to Mr. Macdonald for a final question.

Mr. MACDONALD. I thank the chairman for his indulgence. It takes me out of the category of the headline hunters or he would not be yielding to me again.

This may seem like a small matter to you, but if I leave the room without asking it which I would have to do in a few minutes because of the time, I would have wished I had asked.

One place where you and I don't agree in this bill is that I think there should be something limiting the basic horsepower. There is a ratio between horsepower and cylinders; is that right?

Mr. CHESEBROUGH. Not necessarily.

Mr. MACDONALD. Say that Chrysler has your Plymouth Division putting out a car, two cars, each weighing the same amount. One is



a six-cylinder and one is an eight-cylinder. As a layman, it has always been my impression that the eight-cylinder car has more power and can go faster than the six-cylinder car.

Mr. CHESEBROUGH. In general practice that probably has been true, but it is not necessarily so.

Mr. MACDONALD. My question now goes to speed, as I raised it earlier. If they weigh the same, if the eight-cylinder has more power and more speed, is it overpowered or is the six-cylinder underpowered?

Mr. CHESEBROUGH. It is not necessarily either way, sir.

Mr. MACDONALD. Could you explain it to me in words of one syllable?

Mr. CHESEBROUGH. I am afraid not.

Mr. MACDONALD. Let's try words of two syllables then.

Mr. CHESEBROUGH. I will be very happy to come to your office sometime if you have the time, and explain it to you at length.

Mr. MACDONALD. I know how busy you are.

Mr. CHESEBROUGH. It is not a case of my being busy.

Mr. MACDONALD. If you could just answer my question now I would appreciate it.

Mr. CHESEBROUGH. I cannot answer it briefly, sir.

Mr. MACDONALD. You are not defrauding the public, are you, by selling a car that has eight cylinders when the six-cylinder car will do the exact same job as the eight-cylinder?

Mr. CHESEBROUGH. We can make a six-cylinder engine that will have exactly the same power as an eight-cylinder.

Mr. MACDONALD. Do you?

Mr. CHESEBROUGH. I would have to check. At the present time I don't think we do, but it could be done.

Mr. MACDONALD. Therefore, the person buying the eight-cylinder car is buying the eight-cylinder car because it gets more horsepower and more power, more speed; is that right?

Mr. CHESEBROUGH. I don't know why people buy eight-cylinder cars instead of six-cylinder cars. There probably are different motivations for different people.

Mr. MACDONALD. What does the sales agent tell them?

Mr. CHESEBROUGH. I wouldn't know, sir.

Mr. MACDONALD. You are completely divorced from sales. All you know is engineering?

Mr. CHESEBROUGH. No, but you asked me what the sales agent tells them.

Mr. MACDONALD. You put your heads together so often that I figured maybe you talked to the sales agents as well. I thought it was an integrated company that you represent.

Mr. CHESEBROUGH. I happen to have had 3 years' experience running the Plymouth Sales Division of our corporation. But when you ask me what a sales agent tells the purchaser of an automobile, that is a very difficult question to answer.

Mr. MACDONALD. We understand each other perfectly, sir. You know what I am after and you know that I know that you don't know what the guy in Malden, Mass., is saying right this minute about how to buy a car. But it seems obvious to me that an eight-cylinder and six-cylinder are exactly alike in every respect except the difference is that the eight-cylinder has more horsepower under your present manufacturing conditions.

Mr. CHESEBROUGH. No, they are not alike in every respect. An eight-cylinder engine will have some smoothness characteristics that a large size, high output six-cylinder engine would not have. This is one of the reasons why you put eight-cylinder engines in automobiles.

When you get into higher horsepower engines, it becomes more practical and desirable—from the standpoints of smoothness and other factors such as length of the engine—to go to eight cylinders instead of six.

Mr. MACDONALD. You say, then, that horsepower has nothing to do with it?

Mr. CHESEBROUGH. Not basically; no sir. There are a lot of high-speed, high-powered automobiles made that have six cylinder engines. Mercedes is an example of this, and the Rolls-Royce.

Mr. MACDONALD. Thank you.

Mr. ROGERS of Texas. Did you want to say something else?

Mr. CHESEBROUGH. I wanted to comment, if I may, about the warranty. I have been close to it in some of my experience. Perhaps I could give you a thought that might help clarify the situation.

We in our industry look upon the warranty as a very specific obligation which we have assumed and which we fully expect to honor. I have learned from my experience that if one approaches this only with the concept that there is a warranty and that if something is wrong you exercise your rights under the warranty, this is the wrong approach.

Really, the warranty is an expression by the manufacturer that he has so much confidence in his product that he is willing to commit himself publicly to a specific obligation that his product will live up to what he says. We do not look upon this as something that is wrong out of us, that you have a legal recourse to us.

Mr. ROGERS of Texas. That is true, Mr. Chesebrough. The point I am making is this, and I don't know anything about your corporate structures, but let's put out a basic example. Suppose a man in the city of Plainville, Ky., bought one of your cars and it didn't perform, something went wrong with it, and he felt he traced it back to a violation. He appealed to the dealer and the dealer said, "Nothing doing."

Can he bring suit in the court in Plainville, Ky., and get service on the Chrysler Corp.?

Mr. CHESEBROUGH. He has to bring it in the Federal court, I believe, sir.

Mr. ROGERS of Texas. I understand. If there is a Federal court, he can bring it in the district Federal court?

Mr. CHESEBROUGH. Absolutely. The warranty on our products is a warranty given by us to the purchaser. It is not a warranty back to the dealer.

Mr. ROGERS of Texas. But there isn't a corporate situation here and hasn't been where the mother corporation is protected from citation?

Mr. CHESEBROUGH. No, sir. It is a direct warranty back to the manufacturer. We try mightily, sir, believe me, to make sure that it doesn't have to get to that stage.

Mr. ROGERS of Texas. I appreciate your position about the warranty. We have found some situations where corporate structures have been developed for the purpose of protecting the mother com-



pany and on down the line from being directly answerable. But as I understood it, this was not the case in the automobile industry, and I would hope that it is not the case now.

Mr. CHESEBROUGH. It is not the case, sir.

Mr. ROGERS of Texas. I can appreciate your statements about the warranty, and I think this is good. I think that this is one of the basic answers.

To get over into the situation with regard to your position now as compared to what it was in the Senate—which seems to have come up in this committee and I guess in the newspapers today, too—I understand there have been releases put out about what is going on, but I don't think you will settle these controversies by people putting out different news releases.

It would be like the German farmer who got drunk and tried to shear his hogs instead of his sheep. He got more noise than wool.

The point is this: You have taken the position that you are willing to live up to whatever your responsibility is. If the engineering of your vehicle is not correct and Federal standards would provide better engineering or changes that might make the vehicles safer and cut down the deaths on the road, as I understand it you would have no objection to it and, as a matter of fact, you would cooperate and try to work out the development of this type of situation.

Mr. CHESEBROUGH. Yes, sir.

Mr. ROGERS of Texas. The next question is who is going to make this decision? I am just old-fashioned enough to believe, if we go back to the Constitution, the Constitution says the Congress is supposed to be making these decisions. That is one thing that has scared me several times.

Mr. Bugas, you kept saying you were going to grant the Secretary a lot of authority. As a matter of fact, I think this is a mistake that has been made in this whole governmental structure, granting too much authority downtown without the elected Representatives having the final say.

It would seem to me that if the different responsible segments of the economy could be brought together, whether it be law enforcement, whether it be the driver instructors and safety groups, automobile manufacturers, the highway builders, engineers, and all of these, and formulate some procedure to be followed, and formulate some guidelines, and then bring them to the Congress and let the Congress make the decision as to what ought to be done in this thing, I think we could make some headway and handle it a lot better.

Do you agree with me on that approach?

Mr. BUGAS. Do you mean a forum, an open forum?

Mr. ROGERS of Texas. No, sir; I do not. You can call it a Congressional Commission. You can call it a Presidential Commission. As a matter of fact, the Congress could provide a Commission to be made up of representatives from each of the Governors, appointed by the Governor of the State, and the President to appoint certain men, each business to have a representative responsible for that particular segment of the economy in approaching the problem.

Mr. CHESEBROUGH. Mr. Chairman, the development of performance standards is a dynamic process. It is not something that you do once

and then never have to do again. It is a dynamic process. This becomes especially clear when you get into the broad area of the safety attributes of such a complex mechanism as an automobile. You must consider it operating in the varied environments, climates, road conditions, and so forth, that exist in the United States. This will be a continuing process; it is going to go on all the time. It is going to require that kind of approach to prevent these performance standards from inadvertently stagnating progress.

In this context, I myself cannot quite envision how the Congress could handle this kind of a problem.

Our thought is that after setting out general criteria that establish the major, significant items to be considered in evaluating these performance standards, the Congress could then delegate the authority to set the standards. I am assuming that the procedural provisions would call for visibility of the evaluation process by which standards are set. As a part of this, I am assuming that the provisions also call for periodic reports and reviews that indicate what progress is being made. They should also provide hearings for people who feel that not all the pertinent factors have been thoroughly considered.

Mr. ROGERS of Texas. Mr. Chesebrough, in discussing that Congress ought to lay down the guidelines but cannot set the standards, I think we are getting into a gray area, at least. Say, for instance, a requirement would be that certain parts of an automobile, say the front end, should be so designed that it would withstand certain force impacts.

How you do that and how you design it may be a trade secret. Maybe Chrysler wants to do this one way and maybe Ford wants to do it another.

Mr. CHESEBROUGH. That is why the key word in this is performance standards. You should not specify how it is accomplished. You should specify only that the end result under a specified set of conditions will be a certain value.

Mr. ROGERS of Texas. We will say a minimum tolerance in certain metals that you use. In some foreign countries, there are rules and regulations against anything protruding from an automobile. They will not allow you to put a rearview mirror on the outside.

Mr. CHESEBROUGH. I can envision one of these being a standard which will state that protrusions beyond the normal surface of the vehicle must be capable of being enveloped within an ellipsoid of a certain size and shape.

You probably would have to have two of these, one a long-axis, small-diameter ellipsoid, to take care of narrow things, and one a short-axis, large-diameter ellipsoid, to take care of other things like taillights or medallions.

This would be a general standard. It would not say that a man has to have an ornament of a certain size or shape. All it would say is that whatever he has must be capable of being enveloped within a certain space that is defined.

Mr. ROGERS of Texas. One thing that disturbs me and worries me about this is the situation presented in many other problems that have come up in recent years, where we are drifting away from basic government by the people.



For instance, we devised a scheme which I don't like but where the departments downtown decide something and make their recommendations and submit them to the Congress. Unless the Congress vetos it, they then become equivalent of law. This is reversing the processes, because the veto power was always supposed to have been in the executive branch of the Government, and the legislative powers are supposed to be up here. This is a reversal of the situation which I don't like.

I am talking about procedures now. Maybe they didn't teach this in engineering school and I certainly don't want to impose upon you, but I simply want to make the point that here is a problem in working this out. I would hesitate to see too much power vested in either a Department of Transportation, in the Secretary of Commerce, or in any of the administrative agencies, to write these rules that would, in effect, become substantive law. This is a problem that worries me as a lawyer, which is similar to the ones that worry you as an engineer.

Mr. CHESEBROUGH. I would like, if I may, to repeat something that Mr. Bugas said earlier today.

In our statement today we made no attempt to define in detail operative regulations or rules or procedures that would have to be developed. We merely set down, and not necessarily all-inclusively, some very fundamental principles which we feel should be considered in the development of whatever language ultimately does come out.

Mr. ROGERS of Texas. Mr. Mackay.

Mr. MACKAY. Mr. Chairman, I would like to refer back again to the buckle on the seat belt as illustrative as to why you have to have administrative law instead of a statute.

I think everyone seems to agree that the restraining device is an important safety feature, though we haven't perfected whether you need a shoulder strap or just one around the midriff. I can't conceive of the Congress prescribing a belt buckle in a statute, but I can conceive of a safety performance standard that is tightly enough drawn so that the total mechanism will work.

This is why I think of the seat belt. If you put the pushbutton in doubt, so to speak, in the minds of the public, they do not know where to turn. This is sort of our case for a traffic safety agency so that the industry is protected if they feel that they have been slandered or libeled, and the public is protected.

I think, Mr. Chesebrough, as you say, we are dealing with dynamic standards that we hope will move rapidly in the direction of the reduction of loss of life. I just don't see how the Congress can move fast enough to do that. I share the chairman's concern.

Mr. Chairman, I think, based on my experience in the State legislature, that an administrator can abuse any power you give him, and sometimes they are pretty hard to root out when they do abuse that power.

We do have processes by which we can get rid of an unreasonable administrator because an unreasonable administrator is pretty bad politics.

Again, I think the buckle on the seat belt is the perfect illustration of the simple type of safety feature.

Thank you, Mr. Chairman.

Mr. ROGERS of Texas. Mr. Bugas, if we lay down Federal standards, either by the Congress or by the Secretary of Commerce, or anyone else, it is not going to solve the problem unless some kind of uniformity is worked out with regard to traffic laws, vehicle inspections, law enforcement in all 50 States; is that correct?

Mr. BUGAS. There is no question, sir, about that. You must take into account roads as well, in some fashion. And lighting, as Mr. Farnsley said, is extremely important.

Mr. ROGERS of Texas. Thank you gentlemen, very much.

Mr. BUGAS. Mr. Chairman, we want to thank you, Mr. Staggers, and the rest of the committee, for being so patient and courteous. You have listened with interest and you have understood our problem.

I am sorry Mr. Macdonald is not here. Since he is not, I would like to put it on the record that just as he has accepted our good faith in trying to improve safety, we certainly accept his. If there seemed to be any rancor or hard words, it was just in the give-and-take spirit of such hearings, I'm sure.

Mr. ROGERS of Texas. I think that worked out all right.

Mr. BUGAS. Thank you.

Mr. ROGERS of Texas. The committee will stand in recess until tomorrow morning at 10 o'clock.

(The following letter, with attachments, was subsequently submitted by the Automobile Manufacturers Association in response to questions asked by several members of the committee:)

AUTOMOBILE MANUFACTURERS ASSOCIATION, INC.,  
Detroit, Mich., May 18, 1966.

HON. HARLEY O. STAGGERS,  
*Chairman, Interstate and Foreign Commerce Committee, House of Representatives, Washington, D.C.*

DEAR CHAIRMAN STAGGERS: When I appeared with my associates before your Committee on April 26 regarding the proposed Traffic Safety Act (H.R. 13228), several members of the Committee asked that we submit the views of the automobile Manufacturers Association on questions they raised.

Congressman Rogers of Florida asked for the industry's reaction to the establishment of a Presidentially-appointed commission to advise the Secretary on setting vehicle safety performance standards.

As Congressman Rogers noted, Title I of the proposed Traffic Safety Act does not require that the Secretary consider the views of the industry, nor does it require that he consult with the states or with other knowledgeable and interested groups before setting federal standards. We share the concern the Congressman expressed on this point.

Creation of the kind of advisory commission suggested might be a way of insuring that the views of others are made available to the Secretary before he acts. In certain areas, advisory commissions have contributed to the effective functioning of government where they can be helpful in consulting on broad policy questions. However, we do not believe that they are well suited to a rapidly changing, highly technical area such as this. This is not a situation in which calling an advisory commission together periodically during the year could achieve the necessary objectives.

We believe that the close working partnership which we have proposed between the Secretary and the states, represented by the Vehicle Equipment Safety Commission, will best meet the need for bringing knowledgeable groups and individuals into the standards-setting process. The Secretary and the Commission can draw upon the expert knowledge of the manufacturers and of qualified people in the academic and scientific community, as well.

In another question, Congressman Rogers of Florida asked whether the automobile manufacturers could require their franchised dealers to place safety certificates on the used cars they sell.

The traffic safety problem, as we have noted, has many dimensions and a comprehensive attack on it will call for many different approaches. We support



whatever constructive and practical steps will improve safety. Anything that might be done to help insure the safe condition of used cars sold by dealers of course would contribute something to remedying the total problem.

We must point out, however, that the dealers are independent businessmen, and the manufacturers are not directly involved in their used car operations. The manufacturers nevertheless encourage their dealers to give special attention to reconditioning the used cars they retail, and will continue to do so. It should be pointed out that dealers franchised by the automobile manufacturers account for less than half the used car sales in the country each year.

Since many cars remain with the same owner for several years, any procedure applying to used car sales would not affect them. Congressman Rogers' concern over the condition of the used cars now on the road, which we fully share, can be relieved importantly, we believe, by the adoption of periodic vehicle inspection laws by more States. The industry strongly supports such legislation. We are hopeful that with the stimulus provided under Title III of the bill many more states will enact inspection laws, and that improvements will be made in existing programs. Possibly, attention might also be given to the feasibility of extending state inspection programs to include inspection of used cars before their sale by new or used car dealers, to ensure that they meet safety requirements.

Congressman Mackay asked for our comments on the 28 questions included in the memorandum and workbook prepared by his office. Enclosed is a memorandum responding to these questions.

Congressman Mackay requested that we submit a list of subject areas or vehicle characteristics which might be covered by safety performance standards. A list of eleven such subject areas is attached. He also asked whether the industry favored requiring the Secretary to set safety performance standards, rather than authorizing him to do so. The industry would favor giving the Secretary the authority and the duty to establish such Federal motor vehicle safety standards as he determines to be necessary to accomplish the purposes of the proposed Act, and to that end would have the Congress direct the Secretary to issue appropriate motor vehicle safety standards.

Congressman Kornegay asked how many states have repealed vehicle inspection laws they once had. A list of such states showing the year of repeal in each instance is attached.

Congressman Pickle asked for a closer definition of the guidelines which we proposed be inserted in the bill as criteria for the Secretary in writing standards. We suggest the following specific criteria:

1. The benefit to be derived by any Federal motor vehicle safety standard should be clearly warranted in the light of all relevant factors.
2. The standard should be consistent with the continuation or adoption by motor vehicle manufacturers of efficient designing, engineering, and manufacturing practices, and with innovation, progressiveness, and customary model changes in the automotive industry.
3. The standard, the means of complying with the standard, and the methods of testing for compliance, should embody feasible devices and techniques that are available or can be made available in a reasonable time and at costs commensurate with the benefit to be achieved.
4. The standard should be appropriate to the particular type of motor vehicle or motor vehicle equipment for which it is established.
5. The standard should be made effective so as to allow adequate time for compliance, taking into account the time required for designing, engineering, tooling and production.

It is respectfully requested that this letter and the enclosures be made a part of the record of these hearings. I am taking the liberty of forwarding a copy to each member of the committee.

Very truly yours,

JOHN S. BUGAS,  
*Chairman, Safety Administrative Committee.*

#### RESPONSE TO CONGRESSMAN MACKAY'S 28 QUESTIONS

##### GENERAL PROVISIONS

##### *Question 1*

Should an agency be specified in legislation with explicit responsibility for a uniform and safe traffic environment?

*Question 2*

Should an administrator be appointed by the President?

We submit the following with respect to questions one and two: As to vehicle safety performance standards, the automobile manufacturers have recommended that Congress direct the Secretary of Commerce (or Transportation) to establish federal vehicle safety performance standards, under appropriate guidelines and procedures, working in close cooperating with the state governments and the auto industry. We believe that the Secretary should have the ultimate authority to adopt standards whether or not they differ from the views of the states (as represented by the Vehicle Equipment Safety Commission) or to go forward on his own if the states delay action.

With respect to the total proposed program of traffic and highway safety, the industry believes that these activities would be most effectively and efficiently carried out if they are administered in one federal department or organization such as the Department of Commerce (or Transportation) as proposed in H.R. 13228 and H.R. 13290.

*Question 3*

Should a periodic consumer traffic safety bulletin for motorists be published on a regular basis?

The publication of a periodic consumer traffic safety bulletin for nearly 100 million licensed drivers is quite different from the publication of a similar booklet for the relatively limited number of airplane pilots in the United States.

Highway and traffic conditions are constantly changing and vary widely within states and among states and regions of the United States. For these reasons, a consumer traffic safety bulletin for motorists would have to be published on a local, state or regional basis to be truly useful. Industry leaders have strongly urged the expansion of public information programs to make every American citizen and community aware of their responsibilities for traffic safety. However, we question the feasibility of a national consumer traffic safety bulletin from the standpoint of both cost (90 to 100 million copies) and practical value.

*Question 4*

Should the Secretary be required to submit comprehensive annual report to the President and Congress?

Yes. We believe that the submission of an annual report of progress in the field of traffic safety to the President and Congress would be normal requirement for the Secretary in carrying out his responsibilities under the federal safety program.

*Question 5*

What should be the source of funds for this bill?

The proposed legislation provides that all expenditures under the Traffic Safety Act be financed from the federal Highway Trust Fund. However, the Administration has announced that it will recommend that no Trust Fund revenues now dedicated to highway construction be diverted from that activity.

Under the Administration recommendation, one percentage point of the federal new-car excise tax would be transferred from the General Fund to the Highway Trust Fund. This revenue would be earmarked for the traffic safety program and the highway beautification program which Congress adopted last year. If more revenue should be needed for these two programs, the Administration recommendation would call for supplementary General Fund transfers to the Highway Trust Fund.

Our industry supports those portions of the Administration's recommendation that call for preserving existing Highway Trust Fund revenues for highway construction and for a transfer of General Fund revenues to the Trust fund to cover the full cost of the traffic safety program. The highway beautification program does not belong in the Highway Trust Fund. The program involves projects that are outside the legal right-of-way of the state-federal highway network. Moreover, it would be a reversal of the decision made by Congress last year which specified that no Highway Trust Funds be used for the program.

While we support the proposed transfer of General Fund revenues to the Trust Fund for the traffic safety program, our industry wishes to register its strong objection to the transfer of any part of the new-car excise tax revenue



to the Highway Trust Fund, regardless of the purpose for which such excise tax revenue is to be earmarked.

Since the revenue loss to the Federal Treasury is the same under either an excise tax transfer to the Highway Trust Fund or a simple authorization of a General Fund payment to cover the cost of the safety program, we fail to see any useful purpose served by specifying that some particular tax revenue now going to the Treasury shall be transferred to the Trust Fund.

In effect, the recommendation of the Administration would place the burden of financing highway safety on purchasers of new passenger cars. This program, like highway construction, benefits the entire public. Thus, a General Fund contribution, without dedication of any part of the new-car excise, is sounder and more equitable.

#### TITLE I—MOTOR VEHICLE SAFETY STANDARDS

##### *Question 1*

Should all motor vehicles, including trucks be included?

H.R. 13228 exempts buses and trucks subject to the safety regulations of the Interstate Commerce Commission. However, it does not exempt similar trucks and buses made on the same assembly lines but which are not subject to ICC regulations. To avoid unnecessary confusion which might result from two sets of truck and bus standards, the industry favors:

The exclusion from the proposed legislation of trucks over 6,000 pounds gross vehicle weight and buses that meet ICC regulations, or

Some other provision to insure against conflicting standards being issued by the ICC and the Secretary.

##### *Question 2*

Should setting of performance standards for manufacture of cars be mandatory?

The industry recommends that the Secretary be directed by the Congress to establish under appropriate guidelines and procedures, legally binding federal safety performance standards to the extent he finds necessary to carry out the purposes of the Act. These standards should be applicable to all new cars sold in the U.S.

##### *Question 3*

How soon should standards be set?

There are some existing standards, particularly those currently in effect in the states, which could be adopted as federal standards promptly. With respect to new standards proposed to be established under H.R. 13228, a reasonable amount of time will be needed for thorough study of all aspects of proposed safety performance standards. Such standards must recognize the complexity of the entire process of automotive design, testing and manufacturing. Nevertheless, under its proposal the industry would move forward on its own initiative, and in cooperation with the federal and state governments, to develop and incorporate new or improved safety performance standards in its automotive vehicles as promptly as they can be framed pending adoption of legally binding standards by the Secretary and the states.

##### *Question 4*

How soon should the issued standards be made effective?

This would depend on the type of standard, the degree of change it would require in the total vehicle and the stage of development of affected components at the time the standard is issued. Generally speaking, compliance within six months with any new safety performance standard for any vehicle characteristic not already developed and planned for production would be impossible. While a two-year limitation would pose no problem to the industry in the case of some standards, in the case of other standards that require long lead-time vehicle changes, or that can most economically and efficiently be made at the time of the basic model change that occurs only once every three or four years for each line of automobile, the two-year limit could impose a great hardship for some makes and lines of cars. The industry therefore recommends that the effective date of issued standards generally be set at "not more than two years," but that the Secretary be authorized to extend the two-year maximum term whenever he finds a good cause for doing so.

*Question 5*

Should existing informal standards be formalized?

We believe that the Secretary should be directed to establish, under appropriate guidelines and procedures, federal vehicle safety performance standards to the extent he finds necessary to carry out the purposes of the Act. Even where the principal U.S. manufacturers cooperate to formulate and observe a voluntary standard satisfactory to the Secretary for a major safety characteristic of appropriate concern to the Secretary, we believe the Secretary should establish his standard as a legally binding federal standard for all new cars sold in the U.S. market. Of course, it would not be appropriate to formalize the numerous individual standards that each manufacturer observes as a matter of good manufacturing practice. Formal and legally binding standards should apply only to major safety performance characteristics of the vehicle.

*Question 6*

Should the standard-setting function of the General Services Administration for federal cars be transferred to a new agency?

The GSA has the responsibility to establish government purchase specifications only for those vehicles procured on a bid basis for use by the Federal government. Certain safety performance requirements have always been specified in these invitations to bid. Probably GSA will continue to specify equipment and safety standards to fit its special needs. However, we strongly urge that the final responsibility for establishment of uniform standards for all cars sold in the U.S. be confined to one department (such as Commerce) of the Federal government to avoid conflicting standards and confusion.

*Question 7*

Should there be sanctions on the manufacturers for noncompliance?

The industry believes that the provisions of H.R. 13228 dealing with prohibited acts and enforcement are unfair, much too severe, and unnecessary to ensure compliance. We recommend an enforcement procedure under which those who act in good faith and with due care are not punished, while the penalty for others should be appropriate to the degree of blame that can be fairly charged. This is the procedure followed in other regulatory statutes.

*Question 8*

Should cars be federally certified if they comply with federal standards?

We see no useful purpose to be served by the federal certification of vehicles that comply with federal standards; and further see no way by which certification could be administered without paralyzing the operation of the industry. The proposed legislation contains provisions which would make it unlawful to sell any new car which does not meet the safety performance standards established by the Secretary.

It would be assumed that the federal government, utilizing these provisions, would take whatever action is deemed necessary to assure compliance. More importantly, any procedure under which a Federal agency would be required to inspect and test a new product with sufficient thoroughness to be willing to issue a certificate would result in unwarranted delays and uncertainties in the introduction of new or improved components and models. However, as we have proposed the manufacturer might well certify to the dealer that the new cars delivered to him comply with federal safety standards.

*Question 9*

Should manufacturers be required to notify consumers or the government of defects and to fix defects?

(We assume this question refers to defects dealing with safety.)

The industry historically has recognized its responsibility not only for searching out actual or potential defects in the automobiles which it has sold, but also for correcting these defects. When a company decides, with advice of its engineering, manufacturing and service groups, that a recall campaign is required, each company has specific procedures which it follows to insure that appropriate corrections are made just as soon as physically possible. These may involve not only corrections on cars already in the hands of owners at the dealerships or enroute from the plant, but also on parts being produced in the companies' own plants or produced from outside suppliers.

We as manufacturers all seek continuing improvement in the automobiles Americans drive, and we also seek continuing improvement in the procedures



we follow to make this possible. We have made many changes over the years to this end. As we see opportunities for further improvements we will put them into effect.

We would have no objection to a requirement that the manufacturers notify the Secretary of recall campaigns and of the procedures followed in such campaigns.

#### *Question 10*

Should the agency have specific authority to sponsor construction of a test car?

Long experience in the automobile industry has proved that product improvement is faster and more economical if carried out on an individual component basis to the fullest extent possible, rather than on a total vehicle concept. In this manner, each component can be developed and tested exhaustively on its own schedule. This allows us to release each new or improved component for production at the earliest possible date, rather than to wait several years for the development of a complete vehicle. This is why the development and testing of fully operational experimental safety cars is not a practical or expeditious way of improving the safety of motor vehicles.

However, the automobile industry would not oppose the construction of experimental safety cars by responsible agencies with the required competence. We, however, would oppose granting authority to a government agency to build a "prototype" safety car which the manufacturers would be required to copy in their production models, thus curbing competition, initiative and individuality in automotive design.

#### *Question 11*

Should the funds for this title be increased?

Without greater definition of the program and its scope of responsibilities, it is impossible to make an evaluation of the adequacy of the proposed authorization, particularly for a three-year period. However, we believe that funds should be appropriated and expended only to the degree that they can be used to good purpose.

### TITLE II—TRAFFIC ACCIDENT AND INJURY RESEARCH AND TEST FACILITY

#### *Question 1*

Should the construction and operation of facility or facilities be made mandatory?

We recognize that to carry out the responsibilities stated in the bill, the Secretary must have access to research and test facilities. However, we recommend that a provision be added to the bill directing the Secretary to utilize the services, and the research and testing facilities of competent public and private agencies to the maximum degree practicable because extensive facilities and experienced personnel already exist in the automobile industry and elsewhere.

#### *Question 2*

Should the funds for this title be increased?

Without better definition of the program and until a thorough analysis is made of available facilities and services, it would be very difficult to evaluate the adequacy of the proposed authorization. We believe that the Federal government should concentrate its efforts on development of a broad systems research approach to the overall problem. Such a program would be designed to collect available information about the interrelationships among various elements of the problem—including the driver, the highway, enforcement and the vehicle—and provide a framework that would make it possible to tie together diverse kinds of data.

However, as stated above, we believe that a provision should be added to the bill to direct the Secretary to utilize the services, research and testing facilities of competent public and private agencies to the maximum extent practicable.

### TITLE III—HIGHWAY SAFETY

#### *Question 1*

Should criteria for a qualified state traffic safety plan be defined?

The industry endorses the provisions in Section 402 that state programs such as driver licensing, vehicle inspection, police enforcement, driver teacher train-

ing and highway programs to qualify for federal assistance should be in accordance with uniform standards approved by the Secretary. As suggested by Representative Mackay, procedures should be set up to elicit the views of state officials in formulating criteria for a qualified state traffic safety plan.

*Question 2*

Should specific projects for state programs be required in legislation?

The industry favors covering all of the areas of activity specified in Section 402 as well as in Section 403 which would authorize expanded research in all elements of highway safety and the interaction of the various elements. Because of varying local conditions, we believe legislation should not more narrowly circumscribe state projects within the over-all framework of a balanced program of engineering, enforcement and educational measures.

*Question 3*

What method of setting and administering standards for state programs should be adopted?

The industry favors the approach provided in the bill, under which standards would be developed by the Secretary but he should consider the views of the state officials, associations of traffic safety officials and leading public service organizations in this field.

*Question 4*

What should the definition of "State Highway Department" be?

It is not clear what the bill means in Section 402 in terms of what state agency or agencies should administer the highway safety projects that would be part of the federal-state program. The traffic safety functions of the 50 states are organized in varying ways. For that reason the legislation should be geared to existing situations. It would not be appropriate for the legislation to designate the agency in each state which is to administer the highway safety program.

*Question 5*

What formula should be used for the distribution of funds to states?

We do not feel qualified to express judgment as among the various alternative formulas that might be used.

*Question 6*

Should funds for state grants under this title be increased?

As Representative Mackay has said, there has been no expert testimony as to the amounts of money required. We do not feel qualified to express a judgment on this except to suggest that money should be appropriated and expended only to the degree that it can be used to good purpose.

*Question 7*

Should research, development and testing by the federal government be made mandatory?

We believe the Secretary should be directed to undertake a broad systems research approach to the over-all problem, utilizing the services, research and testing facilities of competent public and private agencies when they are available.

*Question 8*

Should the funds for federal research under this title be increased?

The industry does not feel competent to evaluate the adequacy of the proposed authorizations at this time. This would appear to be a matter for reappraisal from time to time as the Secretary develops a federal research program.

*Question 9*

Should the collection, interpretation and publication of data, statistics and other information on traffic safety be specified by law?

*Question 10*

Should federal accident reports be made public?

We will treat questions nine and ten together. The industry feels that the over-all findings of governmentally supported research normally should be published. However, care must be exercised in the handling of such data and information, particularly raw data that could be subject to misuse and misinterpretation.



The industry favors the provision in the legislation that individual accident investigation reports shall not be made available for use in any action for damages or criminal action.

This is desirable in the interests of making such reports most useful in terms of the primary objective of factual research on traffic safety, including encouraging persons involved in accidents to cooperate in providing more complete and accurate information without the need for concern that their statements may later be used against them in a court proceeding.

If such reports were to be made public and admitted into evidence, we believe the parties to any litigation involving an accident should be free to cross examine the author of a report.

#### PROPOSED AREAS FOR GOVERNMENTAL SAFETY PERFORMANCE STANDARDS

Congressman Mackay asked the industry to furnish a list of subject areas on vehicle characteristics which might be covered by safety performance standards. The eleven areas which the industry suggest include the following:

##### 1. PASSENGER COMPARTMENT STRUCTURAL INTEGRITY

Requirements for passenger compartment integrity during typical impact conditions including rollover. Related specific areas: door hinges and locks, cargo retention, and steering column penetration.

##### 2. ENERGY ABSORBING STRUCTURES

Energy absorption performance characteristics of front and rear structural assemblies.

##### 3. PASSENGER COMPARTMENT INTERIOR COMPONENTS

All interior appointments of the passenger compartment which are related to occupant safety, including instrument panel energy absorption, vehicle control standardization, occupant restraining devices and anchorages, seat structure impact performance, hardware, assists, and flammability of materials.

##### 4. VISIBILITY

Direct vision of vehicle occupants and the driver's indirect vision through mirrors, as well as areas of reflectance, glare, defrosting, and defogging.

##### 5. HANDLING AND ROADABILITY

Degree of maneuverability, cornering requirements, steering effort, and the effects on vehicle path of various environmental influences such as wind and road inputs.

##### 6. BRAKES

Both service brake and auxiliary brake performance requirements.

##### 7. FUEL AND EXHAUST SYSTEMS

Fuel system requirements, including venting, filling characteristics, tank retention, and impact performance, as well as passenger protection from exhaust fumes.

##### 8. LIGHTING AND ELECTRICAL SYSTEMS

Performance requirements for driving lights, signal lights, side markers, horns, and other lighting and electrical items related to safety.

##### 9. EXTERIOR SAFETY PERFORMANCE

Items such as ground clearance and pedestrian protection.

##### 10. GLASS

Structural performance of glass during impact, relating to safe passenger containment, and optical performance of glass.

## 11. WHEELS AND TIRES

Load carrying capacity, traction, high speed performance, and blowout protection.

*States which have enacted, then repealed motor vehicle inspection statutes<sup>1</sup>*

State:	Repeal date
South Carolina.....	1948
North Carolina.....	1949
Arizona.....	1965

<sup>1</sup> Based upon a search of the records by the staff of the Automobile Manufacturers Association.

NOTE: (1) The State of Washington, while retaining an inspection law on its books, has not appropriated money for the operation of State-owned inspection stations for at least 10 years. (2) North Carolina again enacted a periodic motor vehicle inspection law during the 1965 session of the legislature.

(Whereupon, at 6:20 p.m. the committee recessed, to reconvene at 10 a.m., Wednesday, April 27, 1966.)



## TRAFFIC SAFETY

---

WEDNESDAY, APRIL 27, 1966

HOUSE OF REPRESENTATIVES,  
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,  
*Washington, D.C.*

The committee met at 10 a.m., pursuant to recess, in room 2123, Rayburn House Office Building, Hon. Harley O. Staggers (chairman) presiding.

The CHAIRMAN. The committee will come to order.

Yesterday we heard from the automobile manufacturers. Today we have as our first witness Mr. James R. Hoffa, president, International Brotherhood of the Teamsters Union, accompanied by Mr. Sidney Zagri, legislative counsel.

### STATEMENT OF JAMES R. HOFFA, PRESIDENT, INTERNATIONAL BROTHERHOOD OF TEAMSTERS UNION; ACCOMPANIED BY SIDNEY ZAGRI, LEGISLATIVE COUNSEL

The CHAIRMAN. Gentlemen, we are glad to have you and to have your contribution to this very important subject facing this committee.

We are trying to reach out and have everyone who is concerned give us the benefit of their views, and certainly you gentlemen ought to have something to contribute to this hearing.

You may proceed.

Mr. HOFFA. Thank you, Mr. Chairman.

Mr. Chairman and members of the committee, I wish to express appreciation for the invitation extended me to appear before your committee on behalf of the 700,000 over-the-road and city drivers, whose livelihood and personal safety are more directly affected by the proposed highway safety bill of 1966 than almost any other segment of our Nation; on behalf of the 1,720,000 Teamster members and their families totaling over 6 million highway users, who will share with the other 96 million motor vehicle operators, the risks of becoming one of two Americans destined to be involved either in a highway fatality or serious injury in the course of their lifetime.

The \$8.5 billion loss last year caused by highway accidents is nothing when compared to the human tragedy visited upon families surviving 50,000 deaths and 4.5 million injuries during 1965.

The accelerated death rate of Americans on the highways climbing steeply from 38,091 in 1961 to its present peak of nearly 50,000 and with over 60,000 projected annually by 1970, calls for an affirmative national policy in this area.

While I shall address myself primarily to problems of highway safety as it relates to the trucking industry, I wish to emphasize the importance of a comprehensive approach to the problem.

First, I wish to endorse the administration's Traffic Safety Act of 1966 in terms of its objectives. It represents for the first time a truly national traffic safety policy and program; but, I must express serious reservations regarding some of the means proposed.

I favor a bill with mandatory safety standards—not merely the authorization in the Secretary to promulgate standards 2 years from now if he thinks voluntary action has failed. I favor a bill which requires mandatory inspection and testing, not merely at the discretion of the Administrator.

I favor a bill which covers all phases of transportation, and does not exclude from its scope, trucks presumably covered by safety regulations under the Interstate Commerce Act, I shall offer specific amendments to H.R. 13228 covering these points.

#### EXEMPTION OF MOTOR TRUCKS COVERED BY ICC SAFETY REGULATION FROM THE BILL

Implicit in this exemption is the assumption that the ICC has adequate legislative authority to deal with the problem of truck safety, and that it has the necessary enforcement machinery to effectively implement these regulations; further, it assumes that the ICC has a policy and staff to conduct research in highway safety as it relates to trucking. Nothing could be further from the truth.

In recent testimony before the Senate Committee on Government Operations, Chairman Webb, of the ICC, admitted to Senator Ribicoff that the ICC did not have any program nor funds for the purpose of research—an area covered in great detail by the proposed legislation.

The ICC concedes its inability to conduct more than a token inspection with its limited force of 99 inspectors covering a minimum of 2 million for-hire carriers, and a substantial portion of 12 million others registered in the United States. Compare this figure with that of the FAA with its 1,400 inspectors for less than 100,000 airplanes.

In 1965, the total number of fatalities in civil aviation was slightly over 1,000 while the number of fatalities in automobile accidents was close to 50,000.

Under the FAA, the Administrator is required to make annual inspections; whereas, the inspections by the ICC are sporadic, and it is estimated that ICC inspectors will not catch up with safety violators in less than 5 years.

The inspection takes place primarily where safety violations are at a minimum—the offices and terminals of the common carrier. Inspection is almost completely nonexistent with reference to the unauthorized, exempt and private carriers where the violations are flagrant and continuous.

Inspection for safety violations is directed primarily at the common carrier for a variety of reasons:

1. The "gray area" operator conducts a "hip-pocket" operation. His address is unknown to the ICC. If he is a private carrier, he does not bother to report accidents. If he receives a citation, he tears it up



because there is not even a post office box in many instances through which he could be reached.

2 The inspector can make a showing in terms of number of vehicles inspected by stationing himself in the office and terminals of the large trucking companies where records are readily available and management is cooperative.

The "gray area" operator is seldom, if ever, caught up with—except on occasional spot checks. These checks demonstrate a great disparity between the "gray area" operator and the for-hire common carrier in compliance with ICC safety regulations.

The ICC readily concedes its ineffectiveness in this area. I quote from the testimony of former ICC Chairman Robert L. Murphy before a House Commerce Subcommittee in 1962:

In a nationwide road check last October, 58.8 percent of the exempt carriers had four or more vehicle defects as compared with 28.7 percent authorized carriers. Fifteen percent of the vehicles of exempt operators were removed from service for serious defects, as compared with 10 percent for authorized carriers. These figures reveal nothing new. The compliance record of exempt carriers has always been considerably worse than that of authorized carriers.

In the first 6 months of 1963, the ICC inspected 17,000 trucks as a part of a nationwide road check—inspecting only trucks with at least one visible or audible safety violation.

The road check disclosed that of carriers with 10 or more equipment defects, 23.7 percent were either exempt or "gray area" operators, while only 2.8 percent were authorized carriers.

The accident rate per 1 million miles from 1961 to 1964 was 4.10 for the intercity common carrier, and 13.26 for all trucks. ("Accident Experience on the New Jersey Turnpike," John R. Crosby, *Traffic Engineering* magazine, February 1959.)

It is quite clear from the foregoing that the basic problem of the "gray area" operator is not being met by present ICC enforcement authority.

Some 30 percent or over 4 million trucks are engaged in agriculture. An ICC spot check on the turnpikes of Florida, New Jersey and Pennsylvania, where transportation of agricultural products predominates, indicates a disproportionate number of safety violations by the exempt or "gray area" operators.

A survey of accidents on the New Jersey Turnpike from 1952 through 1957 ("Accident Experience on the New Jersey Turnpike," John R. Crosby, *Traffic Engineering* magazine, February 1959) showed that trucks were involved in a disproportionately high ratio of accidents.

The New Jersey study notes, "The tabulated summary for the 6-year period indicates that truck traffic accounted for 10 percent of vehicles using the turnpike and 9.8 percent of vehicle miles. While accumulating this modest exposure record, trucks were involved in 24.9 percent of all accidents and 39.3 percent of all fatal accidents." ("Accident Experience on the New Jersey Turnpike," John R. Crosby, *Traffic Engineering* magazine, February 1959.)

The great extent of truck farming in New Jersey makes it likely that exempt carriers hauling farm produce to markets in New York and elsewhere represent an unusually high proportion of trucks on the

New Jersey Turnpike. This could substantially contribute to the fact that the turnpike accident record for trucks is over twice the national experience.

#### PROBLEMS AND SOLUTIONS

The problems of unsafe trucking equipment, the unsafe truckdriver, and unsafe highways can be dealt with most effectively by vesting the full authority for highway safety overall transportation in one agency under one head.

#### UNSAFE EQUIPMENT

We have two problems here, dangerous new equipment which does not have the latest safety devices and dangerous old equipment, which is usually operated by the illegal or "gray area" operator.

As far as new equipment is concerned, American manufacturers make the finest trucks in the world. But these fine trucks are still the cause of accidents when they do not install the latest in safety equipment.

For example, a device is now available to stop jackknifing of trucks. I may say that we have here a film which is about 30 minutes to show the prevention of jackknifing of equipment by installing a unit onto the equipment which costs about \$750, installed, and figuring the average unit on the highway at around \$30,000 you can readily see that by installing this type of a \$750 cost factor, and if it goes into volume it will be less, it will prevent the sideswiping and going off the road of equipment by jackknifing.

Yet the carriers refuse to install it on their equipment. And it is not required by the Interstate Commerce Commission.

Thousands of accidents occur all over the United States every month where trucks jackknife and sweep other vehicles off both sides of the road. These accidents can all be prevented. This antijackknifing devices can be bought from a distributor, at various truck stops. You can attach it to the fifth wheel of the tractor and the pinpoint of the trailer that will keep that unit from jackknifing.

We took it into Chicago as an experiment, put down 1 mile of foam, put an experienced driver behind the wheel and brought in 400 of our agents and operators, and deliberately tried to jackknife and could not jackknife the unit with this type of equipment on it. This is a different type from the one I have here.

This is the latest device which is now in effect in England and Canada, and just now is coming into the United States.

It costs about \$75, another \$25 for installation. For a \$100 item, you cannot get them to put on a \$12,000 tractor. Nobody told them they had to, so they don't do it.

Then there is another device which is called Driver Alert. With this device if a driver falls asleep or has a heart seizure or stroke or is intoxicated, in any of these conditions once his hand drops from the wheel and his foot comes off the accelerator, then the truck comes to an immediate stop.

An individual has the patent. It is being negotiated now with one of the larger manufacturing corporations in the United States for mass production. And we are trying to get the units put on the new trucks that will come off the line.



As a matter of fact, our next negotiation, there will be three new contract provisions in our contract. One will be the question of the jackknife unit, the other will be Driver Alert, and we have already put in the question of air conditioning in the trucks which keeps the drivers alert and wide awake when driving.

But if we negotiate the installation of these devices, our contract will not apply to the "gypsy" trucks. They will still jackknife. They will still run amok when the driver falls asleep. That is why we want to see safety standards laid down as a matter of law and not as a matter of somebody's discretion. And we want to see these two devices I have discussed made absolutely mandatory, by law, for all trucks on the road.

Now another matter concerns me. In order to maximize freight space some manufacturers have started to cut down on the driver's space in new trucks. A letter from the Motor Carrier Labor Advisory Council to me a few days ago has this comment:

The purpose of this letter is to call your attention to the manufacturers' trend toward less space in the truck cab itself, induced primarily on the part of the manufacturers and the motor carriers to explore the use of shorter cabs in order to take advantage of maximum length of cube space for long-distance hauling.

\* \* \* The reducing of the space in the cab for installation of seats makes the distance between the driver and the steering wheel approximately 10 inches and the trend is to even reduce that limited space. By reducing the space, the manufacturers of truck cabs are making the backrest of the seat more perpendicular and leaving less room for padding and slanting.

Sitting in a truck for 60 hours a week does not make most of our drivers slim. They need a reasonable space if they are to remain comfortable and alert. Here is another case where mandatory standards must be laid down by law if we are not to continue with dollar first and safety last.

An example of a new tractor being delivered and put into operation with a dangerous defect was brought to my attention last week after my highway safety testimony on the Senate side. Nothing could more dramatically show the problems of the driver than to quote from this letter from Bob Elders of Minnesota. He writes:

The trucks of our company butchered four people in the State of Minnesota alone last year and we know that faulty equipment was partly to blame every time, yet we never see an ICC inspector coming around to step on the corns of this big company. Last week I held a driver's head up for 2 hours, to keep him from drowning in the fuel from his own tanks, until a wrecker crew could extricate him from a wreck caused by a factory-built defect which I had protested to the company in writing at the time the tractor was delivered to our terminal.

Good wages and good fringe benefits don't mean much to a man who cannot live long enough to get them home to his wife and kids and I say that our industry has become just about as dangerous as wartime military service.

Those of us who have to pull those boobytraps through four, or five mountain ranges just about every week of our lives, are really heartened when you start thumping the drums for a little safety.

So much for the hazards to drivers and public where new trucks are concerned.

Insofar as the equipment is concerned, there is another brochure here of a safety stabilizer, where, if a tire blows out or if the equipment goes off the rim, the truck will not slide, jackknife, or turn over. It will continue in a straight line.

We likewise have a film here which we would like to have at some time the privilege of showing to the committee to show exactly and dramatically what \$900 will do for safety in saving lives on the highway.

As "gray area" operations expand at the expense of the common carrier, the number of aging and unsafe trucks on the highways steadily increases.

In 1964, over 1,155,000 trucks were between 16 to 17 years old, or 9.3 percent of all trucks as compared to 5.8 percent of all trucks in this age group in 1959. Without preventive maintenance, trucks with over 1 million miles in the 10-year group and over 1,500,000 miles in the 16-to-17-year group, are nothing more than "deathtraps on wheels."

The larger trucklines write off trucking equipment in 3 to 4 years and dispose of these trucks in 6 or 7. The truck manufacturers, such as White or Mack, and Ford through their distributors, will write a preventive maintenance and repair contract on new trucks only for a maximum period of 4 years. Yet they are on the highway for 16 to 17 years. After 4 years, the cost of maintenance increases to the point that it is more profitable to trade the truck in for a new vehicle.

The second-hand dealer who purchases the used truck finds a market among the "gray area" operators who find it uneconomic to maintain this equipment but still find it profitable to run the risks of flagrant and continuous violations of the safety code requirements of the ICC.

#### RECOMMENDATIONS

1. The Administrator shall be directed and empowered to require used truck dealers to comply with mandatory standards before resale is permitted.

The State of Maryland has such a requirement with reference to resale of all used automotive equipment.

2. Any truck 10 years or older shall be presumed to be unsafe, and the burden shifts on the owner to prove the equipment is safe, by complying with the requirements of annual inspection.

#### PREVENTIVE MAINTENANCE

Ernest G. Cox, Director of Safety for the ICC, writes off enforcement of preventive-maintenance regulations of the ICC as merely being "too expensive for the small operator."

ICC regulations requiring maintenance of complete records by the truck owner on the maintenance inspection prior to each trip and by the lessor in a trip-lease arrangement, should not be ignored by the regulatory agency simply because it suits the purposes of the unauthorized carrier and the shipper.

The major manufacturers of trucks such as White, Mack, and so forth, offer the purchaser a preventive-maintenance policy at 1 cent per mile calling for 75,000 miles per year over a 4-year period.

This preventive maintenance guarantees the owner an inspection, lubrication, and minor adjustments every 3,000 miles. Comprehensive maintenance and repair contracts can be bought for 5½ cents a mile for the same number of miles for the same duration.



If the "gray area" operator is required to undertake the same "maintenance" contract responsibilities that the common carrier does, he would be placed at no competitive disadvantage, for the additional costs would be incorporated in a competitive price.

The basic point is that by cheating on the preventive maintenance or repair, the "gray area" operator exposes the driving public to the hazards of unsafe equipment by engaging in unfair competition with the legitimate carrier.

Unsafe driver: Now who is the unsafe truck driver? If he is a drinker or a pep pill taker, we say "Fire him." He has no recourse here in the Teamsters Union.

But all accidents caused by driver failure are not the result of the actions of this reckless minority.

An unsafe driver need not drink or turn to "bennies" in order to be a danger on the road. If he is exposed to the pressure of overlong hours or if he is sent off in an unsafe rig, he will still figure in the accident statistics if he never took a pep pill or a drink in his life.

Most unsafe truck drivers are a direct result of the economics of "gray area" operation. Somewhere out on the highways now you can find the bull hauler trying to make the Chicago market from western Nebraska or the trucker delivering oranges from Florida to the farthest northern point without a stop because of the perishable nature of his commodities and his desire to cut prices.

The death of the late Congressman Thompson of Louisiana was caused by a gypsy operator who had been on the highway 21 consecutive hours in violation of ICC maximum-hour standards and who suffered from glaucoma in both eyes and diabetes.

The accident reports show the driver testified he did not see the late Congressman Thompson's car parked by the side of the road at the time the crash occurred.

As an alternative to a large Federal corps of inspectors, which would have to number in the thousands to be effective, I recommend that the Secretary of the agency be directed to impose, by regulation, responsibility on the shipper and on the trucker to assist in policing the safety regulations through the following procedure:

1. Requirement that the shipper time-stamp the driver's log in the case of the exempt carrier. This information would then be available to an ICC inspector to spot check the number of hours the driver has been on the highway and time elapsed between trips.

This would be the only effective check on the "gray area" operator, since the shipper's address is known and his operation can be clearly identified. He is usually a legally responsible party and would respond to effective regulation.

2. The dispatcher would be required to inspect the driver's log for maximum hours permitted, minimum number of hours between trips, and safety of equipment before dispatching a trip.

3. The log would have to be stamped for safety equipment by an authorized garage indicating a complete safety check of the equipment immediately prior to the dispatcher authorizing the run.

4. Penalties would be imposed on the trucking company if the dispatcher were in violation in failing to check the log for either maximum-hour or equipment-certification requirements.

5. The shipper would be in violation if he contracted for a shipment when a time-stamp on the log indicated a violation of maximum hours or rest period requirements on the previous load.

Spot-check of the driver's log on the highway would result in extensive compliance with existing safety regulations. Thus, the shipper and the dispatcher would become the instruments of a built-in industry policing system. Failure to comply with these regulations would result in injunctive and civil forfeiture penalties.

While most unsafe drivers are the "gray area" employees, our own common carrier drivers also have accidents. Their record is much better than the unregulated drivers. Our common carrier drivers averaged 4.10 accidents per 1 million vehicle miles in the 3-year period from 1961 to 1963. This compares with a record of 36.82 accidents per million vehicle miles for contract carriers. (Source: "Accident Facts," 1965, p. 62. National Safety Council.)

But the best of drivers, even our common carrier drivers, can be asked to do too much. And that is happening today. And, it is happening with the approval of the Interstate Commerce Commission. The ICC is a large bureaucracy and, possibly, the right hand does not know what the left hand is doing down there.

In one ICC division they are approving new runs which require that our drivers exceed either safe hours or safe speeds or both. In another ICC division, Mr. Cox and his staff are concerned with highway safety. Perhaps they should go over to the other division and strike a blow for safety of operation by getting some of the new runs disallowed.

I want to place in the record here a letter received from Edward Hensley, a Teamster member of Local 549 in Kingsport, Tenn. Hensley lists new runs where drivers are asked to average 43.5 and 45.5 miles an hour and pass through cities, towns and low-speed zones. It can be done, but only by ignoring safety regulations and blasting along at 70 miles an hour on the open road, in a projectile weighing up to 70,000 pounds.

In order to make these runs our drivers must either go at reckless speeds or exceed their 10-hour trick behind the wheel and face great dangers from oncoming sleepiness.

(The letter referred to follows:)

BRISTOL, TENN., April 15, 1966.

DEAR SIR: I am writing you in connection with the current discussions and investigations of national highway safety.

I wonder why nothing has been mentioned about the truck transportation industry and the manner in which the large companies are forcing their drivers to operate with no regard to hours of service, no consideration of other highway users and in violation of legal posted speed laws.

Recently, The Mason & Dixon Lines of Kingsport, Tennessee, was given approval by the ICC of a run from Kingsport, Tennessee, to Carlisle, Pennsylvania, as a tour of duty. (A tour of duty must be completed in ten (10) hours by ICC regulations). This is 435 miles, part of which is 50 miles speed limit and a large part with lower speed limits plus a number of cities and towns. This must be completed in 10 hours, average 43.5 miles per hour which is impossible without violating speed laws or hours of service regulation.

Associated Transport, Inc., 380 Madison Avenue, New York, N.Y., is trying to establish runs from Roanoke, Virginia, to New York, N.Y., Roanoke to Newark, New Jersey, Roanoke to Scranton, Pennsylvania and Roanoke to Nashville, Tennessee. These runs are 455 miles and more. A truck must average more than 45 miles per hour to make these runs in 10 hours.



Time Freight Company of Lubbock, Texas, is trying to establish a run from Knoxville, Tennessee to Winchester, Virginia, 455 miles. Top legal speed limit is 50 miles per hour with numerous lower speed zones plus cities and towns.

In order to keep from violating hours of service regulation, the drivers are being forced to operate at speeds far in excess of legal, with no regard for safety of highway users which is increasing the accident potential and very dangerous.

Please use your position and influence to curtail this very dangerous type of operation. The best safety device I know of is the *Driver* of any vehicle, and when a driver is forced to operate at speeds and conditions until he is too fatigued, he becomes an unsafe driver.

Cordially yours,

EDWARD HENSLEY,  
Bristol, Tenn.

Mr. HOFFA. In conclusion, I wish to take this opportunity to extend an invitation to any member of this committee and to members of your staff to spend 2 days with me in checking unsafe equipment and unsafe drivers on the highway.

You will not fully appreciate the scope and the depth of the problem until you witness firsthand the extent of the violations that are taking place and the complete inadequacy of enforcement.

I wish to commend this committee and the President for undertaking affirmative responsibility for the first time in the formulation of a national highway safety policy which can become meaningful providing that the following recommendations are included:

1. That the discretionary authority vested in the Secretary of Commerce under H.R. 13228 be changed and that he be directed to establish mandatory standards within a period not to exceed 1 year.

I recommend the language of this section be patterned after the Federal Aviation Act of 1958, which states that "the Administrator is empowered, and it shall be his duty, to promote safety of flight of civil aircraft, by prescribing such minimum standards as may be required in the interests of safety, and specifically states that standards shall be established governing design, materials, workmanship, construction, and performance of aircraft, and also governing appliances."

2. I urge that the period of inspection be clearly spelled out, that they be made mandatory, and that, as in the case of the Federal Aviation Act, the Secretary be directed and empowered to make inspections on a regular basis as specified in the act.

3. That section 101(c) be amended by striking on page 2, line 24, beginning with the word "other" to and including line 5, page 3, thus eliminating the exemption of motor vehicles under the jurisdiction of the ICC, and thus including safety regulations of all trucks within the scope of this act.

I further recommend that the Secretary be empowered and directed to carry out the program of inspection as implemented by imposing responsibility on the dispatcher, shipper, and driver.

May I add that any records we have and any research work we have done in the area of highway safety will be available to this committee and to any agency set up by legislation which will concern itself with highway safety.

Gentlemen, this is the statement in behalf of the professional truck driver, in behalf of our organization, and I would like to state that regardless of the desire of safety by manufacturers or this committee the desire to make money is stronger than the desire of safety.

Unless you impose mandatory and strict regulations and do it promptly, you can pass all of the so-called good will legislation that is recommended by the industry and you will have nothing accomplished.

I would like to suggest that in the very near future we bring this equipment to Washington and set up a demonstration to show that, by simply installing the safety stabilizer, the jackknife unit, the driver alert, on a single piece of equipment, that it will one hundred-fold improve the safety of the equipment.

Most of you gentlemen do not realize that today we are driving 105-foot units, bringing two units from the metropolitan unit out to the highway, placing the units together, placing a large horsepower tractor at the head of the double train and taking off for Chicago or Maine, or taking off with two 28-foot trailers, with a tractor, running 93 feet, and taking off for Los Angeles or San Francisco, with two drivers in the cab, one driving for 4 hours, one in the bunk for 4, going out to any one of the western points, turning immediately around and heading back for Chicago and making the entire trip in 4½ days.

The equipment they are driving is valued at from \$30,000 to \$40,000 or \$50,000 based upon the type of unit. Yet the installation of another \$1,000 worth of equipment, amortized off as a business expense, will never be placed on this equipment unless two things happen: One, as we did with the air conditioning, put it in the labor contract; or the Federal Government recognize that safety operations by trucks are as important, or more important, than safety regulations of passenger cars.

Professional drivers roll up every night more miles than the average driver drives any 1 month of any 2-month period. Our drivers average 2,200 miles a week. When we average 2,200 miles a week, 60 hours a week, or in sleeper cabs average 108 hours, then our city drivers driving in and around the city where they have equipment that is worn out, that was taken off the highway and placed in the city with no safety regulations, the blowing out of a used tire or the equipment having the wheels fall off of it, or the fifth wheel becoming dislocated because of the wearing out of the shaft, dropping the trailer and so forth creates deaths all over the United States.

I would sincerely recommend that when we establish the unit here from Chicago, that as many members of this committee as possible take off sometime and look at the professional drivers driving 40 and 50 miles per hour, deliberately trying to crack up the equipment, which will show you that with the safety devices I am referring to here you cannot crack up the equipment—unless some fool runs into you which you cannot prevent. But at least the professional driver will be protected and so will the general public.

We will have copies of both of these films to leave here from Mr. Zagri sometime this week. We would appreciate your giving us the opportunity to show you the films if you cannot attend the experiment with the actual equipment.

I would like to incorporate these brochures into the record. They are both marked from the standpoint of the pertinent provisions, plus



the cost factor and the installation cost, so that you can have an opportunity to read and observe what can happen by simple devices being installed on equipment.

Thank you.

(The documents referred to follow:)

[From Fleet Owner, March 1966]

#### THE HOPE ANTI-JACKKNIFE DEVICE

Designed to prevent that terror of all drivers—a trailer jackknife—a new device incorporated into the trailer kingpin is now available to U.S. fleet owners.

Already in use in England, the device was invented by F. J. Hope, operator of Hope Transport, Ltd., after he had lost five trailers in jackknife accidents. Reportedly, no trailer equipped with his Hope Anti-Jackknife Device has ever suffered a jackknife after being so equipped, and Lloyds of London insurance underwriters give from 5% to 7½% premium reduction for vehicles equipped with it.

Because of the rigidity of the British transport licensing system, Hope established another company, Self-Energizing Disc Brakes, Ltd., to develop and market his device. Marketing rights in the U.S. and Canada are held by The Hampshire Equipment Corp., New York, N.Y.

#### BASIC DESCRIPTION

Replacing the conventional trailer kingpin, the Hope Anti-Jackknife Device is basically an air-operated clutch on a rotating kingpin that is held in a fixed position in a tractor's fifth wheel. Operated by application of the vehicle's air brakes, the Hope AJD exerts a snubbing effect on the swinging motion of a trailer, the sort of motion that develops into a jackknife.

The Hope device is installed on the top side of a trailer's upper fifth wheel plate. The housing is rigidly secured in a fixed position. The special kingpin extends below the upper plate, like a conventional pin. But it has one major difference—the pin has a "tail" or offset arm that fits into the slot on a standard fifth wheel.

Inside the AJD housing, there are 11 clutch discs. Five of these are unlined discs, splined to the rotatable kingpin. The other six plates are lined with friction material and are secured to the device's housing.

An air chamber and piston at the bottom of the AJD produces upward pressure on the discs when air is admitted. Thus, when the driver applies his brakes, air enters the chamber, pushes the piston upward on the horizontally mounted discs and dampens the kingpin rotation as long as the air pressure remains applied. As the brakes are released, air exhausts from the AJD and its kingpin is again free to rotate.

Air valving and piping is relatively simple. Built by Westinghouse Brake and Signal Co. in England, there is an air equipment panel that has three air connections.

On the left side of the panel, a limiting valve is mounted which is connected to the emergency air line. In the center of the panel is a relay valve and on the right is a double check valve connected to the service brake line and to the AJD.

In operation, air from the service line passes through the double check valve and into the relay valve. When the relay valve senses a brake application, it instantly actuates the limiting valve which admits 50 p.s.i. of air from the emergency line into the air chambers in the Anti-Jackknife Device. This produces 50,000 in. lb. of torque from the device. Copper tubing air lines are all ¾ in. dia.

The air equipment panel should be mounted in a location convenient for maintenance and within five ft. of the Hope device. This reduces pressure drop from long air lines and increases sensitivity of control together with less air consumption.

The Hope AJD will be energized by any application of trailer brakes, either by the driver's foot pedal in the cab that activates brakes on both tractor and trailer, or by use of the trailer hand control only.

## DETAILED SPECIFICATIONS

Measuring approximately 12 in. wide and 4 in. high, the AJD fits between trailer framing supports and can be installed in any trailer. Interchangeability of trailers is not affected.

The main housing of the AJD is aluminum alloy with a tensile strength of 20,000 psi. The housing fits into a steel adapter ring,  $\frac{3}{4}$  in. thick, that is welded to the top side of the upper fifth wheel plate. After the adapter ring is properly located and welded, the housing is attached with three steel dowel pins and eight high tensile steel  $\frac{1}{2}$ -in. capscrews with SAE threads.

At the kingpin shoulder, where the line-up leg is attached, the strength rating is 110,000 psi, exceeding the strength set forth in SAE Standard J 700 for standard kingpins (60,000 psi.). The maker reports the AJD has a drawbar pull rating of 85,000 lb. with a safety factor of 2:1.

Inside the aluminum housing, the kingpin turns in two large aluminum bronze bearings. The bearing material is reported to have 60,000 psi tensile strength and requires no lubrication.

If maintenance is needed, the top cover of the housing is removable. The device, however, is reported to need little or no maintenance as it is self adjusting for clutch plate facing wear. Some have been in use in England for 250,000 miles with no attention.

## FIRST U.S. INSTALLATION

While a number of the Hope Devices have been sold to U.S. fleets, mostly on a trial basis, the first one known to have been installed and tested was put on a compressed gas trailer operated by a large eastern compressed gas producer. I watched the installation and rode in the rig on a road test afterward.

Installation is fairly simple. On the trailer I saw, the old kingpin was removed, together with some covering bracing. Then, a large slot, the width of the kingpin hole in the upper plate, was cut extending forward. This slot admits the locking lug of the rotating kingpin; also, a machined shoulder of the Hope Device casing fits into the slot to align the case and resist turning.

Using the Hope Device casing as a template, the adapter ring was located, clamped tightly to the upper plate and tackwelded in position. After lifting off the casing, the adapter ring was electric arc welded all around with approximately  $\frac{1}{4}$  in. bead.

This was done on a new  $\frac{3}{8}$  in.-thick upper plate. When the mechanic removed the old pin, the heat required to burn it out warped the original  $\frac{1}{4}$ -in. thick upper plate. Rather than risk a weakened plate and a poor fit of the Hope AJD, the shop superintendent and fleet engineer agreed that a new plate should be used.

After the adapter plate was welded in place, the casing was set into it and bolted loosely with the  $\frac{1}{2}$  in. dia. SAE capscrews which are tapped into the adapter ring. While the bolts were loose, the three roll-pin type dowels were driven through the casing and on into the adapter ring. Then the bolts were tightened to 90 ft.-lb. of torque, and safety wired.

The air equipment panel was located on the back side of the frame cross member immediately behind the kingpin, well within the preferred five-ft. dimension. Tubing lines, as shown in photo, were short and direct.

Last step in the installation was to re-install a channel cross-member ahead of the AJD and make up a protective cover over it. (This would not be needed on a van trailer but was felt desirable on the compressed gas trailer with its exposed forward section. While the AJD is completely sealed, the air line to it could be damaged if not protected).

Total installation time was about 7 hours. But part of this was the inevitable "feeling the way" on any first installation and the need to put on a whole new upper plate. Normal installation time is estimated at 4 to 5 man-hours.

## ROAD TEST

After the Hope Device had been installed and air line connections checked for leaks, the trailer was road tested. I rode with the mechanic who had installed it; his supervisor rated him a highly skilled trailer driver.

We drove 10 to 15 miles over local roads and on a section of U.S. 130 long notorious for jack-knife accidents. The road was wet from melting remnants of the blizzard of '66; the road surface was blacktop.



Several times we encountered potential jack-knife situations. Traffic lights changed to red as we were almost up to them or the driver deliberately applied brakes in a panic-stop type test—once on a winding, downhill S-curve.

In every test, the rig stopped straight and true. The driver noted no sense of weaving or "wiggling," such as he said he had often experienced in such severe stops on wet roads. To me, the rig stopped like a giant straight truck.

A point had been raised in advance conversations concerning effect on steering if the Hope AJD is energized while a rig is turning a corner, as would occur if a driver brakes moderately while turning. The driver made several test turns, applying brakes each time, with no adverse effects on steering or handling. The Hope Device was actuating; the operation of the relay valve in admitting and exhausting the air was audible in the cab.

#### MARKETING PLANS

Additional Hope Anti-Jackknife Devices have been sold to common carrier, private and petroleum hauling fleets, mostly on a trial basis. According to James Marshall, president of Hampshire Equipment Corp., the device has a list price of \$670.

#### HOW THE SAFTI-STABILIZER SAVES YOUR TIRES, YOUR VEHICLE & YOUR LIFE

Engineered for safety and economy the Safti-Stabilizer is constructed of high quality extremely strong materials and steel, and specially made steel springs built to hold a constant tension indefinitely. There is half a unit of the Safti-Stabilizer for each front wheel which consists of five basic parts: 1. Wheel Clips, 2. Wheel Springs, 3. Rotary Bar, 4. Pivot Springs, 5. Main Bar. At times a Mounting Bar is also necessary. Each half unit is attached to the axle or A frame of the vehicle and to the backing plate of the wheel, or if there is no backing plate to a specifically made template. The proper installation of the Safti-Stabilizer which includes front wheel alignment and balancing, as well as a test drive is not complicated, but must be done correctly. Briefly, here is how the Safti-Stabilizer works. The rotary bar pivots on the main bar, always remaining parallel to the wheel. Constant tension on the wheel springs holds the front wheels steady and in alignment. Front tire treads wear evenly—no more dipping and spooning out of treads. The function of the pivot springs, which is the safety part of the Safti-Stabilizer, is to keep the wheels going in a straight-forward direction. In making turns, the pivot springs of each half unit work together in compensating motion. As one set of springs takes up the other lets off causing the front wheels to recover quickly back to front center. Front wheel jack-knifing, oversteering, loss of steering control from blowouts, hitting potholes, and running onto shoulders are virtually eliminated by the Safti-Stabilizer.

#### WHAT IS THE SAFTI-STABILIZER

The Safti-Stabilizer is exactly what its name implies . . . a safety and stabilizing device invented for the front end of automotive vehicles. Fully patented . . . engineered for safety . . . and proven in performance in years of exhaustive testing, as well as in actual use, the Safti-Stabilizer is now providing a new margin of safety and economy in over-the-road operation of trucks, buses, and automobiles.

*Here is what the Safti-Stabilizer can do for you*

**Positive safer steering control.**—The Safti-Stabilizer gives safer steering control by helping to prevent loss of steering control. Traffic records show that loss of steering control is a major cause of accidents. By overcoming this danger the Safti-Stabilizer can save countless lives. Front wheel jack-knifing, oversteering, or loss of steering control from blowouts, hitting potholes or obstacles, and running onto shoulders are virtually eliminated by the Safti-Stabilizer.

**Keeps front wheels in alignment.**—The Safti-Stabilizer will keep the front wheels of your vehicle in alignment for an indefinite period of time. This has been proven by years of extensive rough-road testing and actual use. The money saved on alignment can soon pay for your Safti-Stabilizer investment.

Increases front tire life and mileage.—By holding the front wheels steady and in alignment, the Safti-Stabilizer causes the front tire treads to wear evenly—no more dipping and gauging out—giving greater tire life and mileage. The Safti-Stabilizer can pay for itself many times over on tire savings alone. Truck owners using the Safti-Stabilizer report saving hundreds of dollars every year on front tires. Many users find they are getting two to three times more front tire mileage.

Reduces front end parts wear.—The Safti-Stabilizer gives new strength and stability to the front end of your vehicle. Things such as ball joints, king pins, steering arms, idler arms, bushings, etc., are held steady and tight—decreasing wear and increasing the life of your front end assembly.

#### LIFE AND MAINTENANCE OF THE SAFTI-STABILIZER

Once the Safti-Stabilizer is properly installed and spring tension correctly adjusted, the only maintenance necessary is to pack the springs with grease whenever the vehicle is lubricated. Under normal use the Safti-Stabilizer should last for the life of the vehicle. Though repairs or adjustments are extremely rare, they usually fall well within the warranty period.

The CHAIRMAN. Mr. Hoffa, we are very happy to have this testimony this morning. I think it has been very pointed and very good. I think this pinpointed something that has troubled me, and I know has troubled many Americans on the highways of America, with some of the trucks that we deal with and have to compete with on the highways, as to whether they are safe.

I am happy to see that you are advocating strong regulations, mandatory regulations, and rigid inspections, and that all vehicles that travel on the road should be under this, as I gather from your testimony; all vehicles, regardless of whether they are trucks, motorcars, or whatever they might be, that they be regulated.

After all, we all share in the responsibility for whatever we are doing on the road.

I think it is the duty of every American and every segment of industry, and every segment of our American life that uses our highways, to be interested and to know what is going on.

I, for one, am very happy to have your comments before the committee. I am certain they will be helpful to us.

You do advocate a law similar to that which has been in effect in regard to the FAA with regard to prevention of accidents, as I understand.

Mr. HOFFA. That is correct. They have the authority and the ability to ground equipment and to make necessary inspections prior to accidents, not afterward.

The CHAIRMAN. Mr. Rogers.

Mr. ROGERS of Texas. Mr. Hoffa, I want to compliment you on your statement. I think it is very good and very comprehensive. Although I will probably want to go into further discussion on some of the points you have raised, I think your approach is based on the proposition that in the first instance the vehicle on the highway must be a safe vehicle, regardless of what procedures are used to get it that way. Unless it is safe, the driver has no control over it.

I presume in your experience you have had occasion to wonder whether or not a vehicle that comes into the hands of any carrier, a brand new vehicle, is ready to move and ready for a driver to take it over.



Do you have any inspection procedures of those vehicles? Does the Teamsters Union advocate any inspection of those vehicles?

Mr. HOFFA. Our drivers have provisions in all their contracts where they have a right to refuse to take any equipment out on the highway that they believe is not proper concerning safety.

However, the equipment, itself, no matter how safe it may be, could be safer by applying the devices that the manufacturers of safety devices know about.

It is all right to say that air brakes on a new tractor coming out of the factory are equipment and they work perfectly. But if you just added the one more point to it, that the stabilizer and the jackknifer and the driver alert could take care of the driver problem or the equipment problem, it would be better.

Mr. ROGERS of Texas. My point is this: Take the stabilizer or the gadget that keeps them from jackknifing, and if you required this but it wasn't put on properly, it would be just as dangerous as if it had not been put on in the first instance.

Mr. HOFFA. That doesn't happen very often. The equipment that comes from the manufacturer generally, for the purpose that you paid for, is there and in good working order.

Mr. ROGERS of Texas. But suppose the standards required this. Don't we have machines, equipment and things of this sort that would enable any able man to inspect a piece of mechanical equipment and tell whether or not all the screws were in there, whether all the doors were going to stay on, and whether or not the brakes were going to work when you turned it over to somebody and took the price for it?

Mr. HOFFA. I don't know about the screws and the doors, but anything that is mechanically safe concerning the driving aspect of it can be checked on a preventive maintenance line which we have in the major trucklines.

But only about one-fifth of all the trucklines in the United States have major preventive maintenance. The balance of them just rely upon the driver to earmark and tag the equipment for the garage. About 50 percent of all the trucklines have garages. The other 50 percent go out and shop around, if and when finally they can't run any longer, for maintenance. That is the problem.

Mr. ROGERS of Texas. Take, for instance, the Mack Truck Co., with their preventive plan for 4 years, I believe you said. You would advocate that under this plan, some evidence would be available as to each vehicle, that it has been subjected to the inspections provided under this preventive system, and after the 4-year period is passed some regulatory measure, whether it be on a State basis or a Federal basis, be available to let law-enforcement officers, who are the ones who come in contact with this so much, know whether or not this has been subjected to inspection, to see whether or not it is a safe vehicle.

Mr. HOFFA. As an example, most of the States today have weigh stations where you scale equipment for overlength and overload. There is no reason why there could not be built additional facilities right at the weigh station where every truck has to cross to check the safety factors of that equipment.

It could be done by adding one or two more men at the weigh station.

Mr. ROGERS of Texas. The ICC, of course, insofar as this is concerned, assuming that all 99 inspectors are doing an outstanding job to the best of their ability, your position is that under this circumstance they are simply understaffed.

Mr. HOFFA. I have 5,000 business agents servicing the same companies that they are trying to service with 99. It is a pretty good ratio. We are just as close to it as we can possibly be with 5,000 people. That is the number needed to go out and check these terminals and take care of the problems.

Mr. ROGERS of Texas. Let me ask you one final question, as my time is up.

In 1955, we went into this matter and there were two boys out in Detroit who developed what they called a radar brake. You would set this brake and when got so close to a solid object your brake would go on whether you wanted it to or not.

What happened to that?

Mr. HOFFA. I looked at the device on Sunday in my office in Detroit. It is being rearranged to fit the patent requirements. It has not been patented yet. It is on two trucks and two automobiles as an experimentation but it is not ready yet for mass production.

It does exactly what you stated. If you come too close, what we call tailgating, to the unit, the second unit will immediately stop. It does work off the power brake system of the equipment.

Mr. ROGERS of Texas. One of our committee members was testing this in downtown Detroit but he never let the car get close enough for the radar to work. His reflexes would make him get on the brake.

Thank you very much.

Mr. HOFFA. He was a little scared of the equipment. That is what happened.

The CHAIRMAN. Mr. Springer.

Mr. SPRINGER. Thank you, Mr. Chairman.

First of all, Mr. Hoffa, I think your statement is concise, which is always important to this committee. We have so many of them that ramble, but you seem to have hit two or three points which I would like to touch upon in my few minutes.

Do you have any figures on the amount of transportation by truck from Chicago to New York that travels over the Interstate System?

Mr. HOFFA. Do you mean the number of units?

Mr. SPRINGER. The percentage of units.

Mr. HOFFA. I have no specific points between "A" and "B"; no, I do not.

Mr. SPRINGER. I am talking about these two points, because these are the only ones I know of right now where you have a complete four-lane Interstate System, nonaccess, between two big cities some distance apart. You have it from New York to Boston. But this is between two cities which are relatively 700 miles apart.

It is my understanding from all that I can obtain that the percentage by weight that is carried is rather high between Chicago and New York that goes over the Interstate System.

Mr. HOFFA. There is the greatest amount of truck traffic in the United States between Chicago, Detroit, and New York or New Jersey.

Mr. SPRINGER. I am advised by 1974 this system will be completed.



From the best information I can get, projecting this forward, somewhere between 80 and 100 percent of the long-distance traffic carried over the highway after that year will be carried on the Interstate System.

Mr. HOFFA. There is no question about it. The "B" roads are not being maintained and the speed limit is being lowered to the point that trucks cannot pull the capacity loads on "B" roads.

Mr. SPRINGER. Here is the thought: Generally speaking, we have had weighing stations which are regulated by States. Is there anything wrong with an inspection station, talking about Federal law, on the Interstate System? I don't know whether this is our job or whether it is Public Works, under this division of authority. But is there anything wrong with the system of inspection stations on the Interstate System to largely carry out this program which properly ought to be done, of inspection?

Mr. HOFFA. It is the only way you will police it, with a minimum number of people, without creating more danger.

Mr. SPRINGER. This is the only way that I can think of that you will get most of the truck traffic in this country. You will have some on your secondary roads, but if what we want is true, there will not be a single city of 60,000 people or more which is not on the Interstate System by 1974, which will mean that you pretty well have corralled all the traffic of this country.

Mr. HOFFA. You will get 85 percent of it.

Mr. SPRINGER. I am trying to come up with a constructive solution to get at this question of inspection.

In going into the weighing stations, and I visited one not too long ago, it doesn't have too much to do with inspection. Most of them who are turned off do not have questions of State inspection in Indiana or Ohio, but largely how much you are carrying on the axle.

So I didn't see there was too much in this unless it was pretty obvious to the policeman that there was a violation, he wasn't carrying the right lights, or something like that.

This is one solution to the problem of inspection, as I see it, looking into the future.

There is a second thing that I think is important. This bill, as I read it, goes into a whole lot of detail, and we certainly have a tremendous amount of emotion and a lot of talk, as I read in the newspapers, in the body on the other side of this Congress, about the new vehicle. But last night on my way home I stopped out on Connecticut Avenue at a large retail establishment. He had six cars in his window. That is all he had. He had 27 cars on order, and 2 of them were standing out in the lot. But he had between 80 and 90 secondhand automobiles that were for sale to anybody.

So he had about four times as many automobiles which were not new that were for sale as he had that he had already sold.

I am coming back to your page 8 about requiring used truck dealers to comply with mandatory standards before resale is permitted.

Fortunately, the District of Columbia has an excellent law and I am familiar with that. I am on the District Committee and I know it is a good law.

Mr. HOFFA. They don't enforce it, though.

Mr. SPRINGER. Whether they enforce it, at least we have one. May I say I bought a secondhand car last year in Maryland and they said, "You take it down to the District because they have a good law and if it doesn't comply, we will bring it up to those standards."

I am giving you the best I can give you on this.

Somewhere along the line, I presume we are going to have to take care of the question of what is done after that new car or truck is sold. This is the gray area that I see in this bill that is not properly covered. They talk about working with the States and working with the industry, but actually, I don't see anything in this bill that is very tight on what you do after that truck or automobile leaves the sales stand when it is new.

I think you have made probably a construction suggestion about mandatory standards. Let me ask you this: The VESC—are you familiar with that?

Mr. HOFFA. No.

Mr. SPRINGER. This is the Vehicle Safety Commission, which is a compact originating with the Beamer resolution of 1958 and to which 44 States are attached.

Do you think that the Administrator could work out with that State authority some kind of an arrangement if we could get it into this bill for enforcement?

Mr. HOFFA. Public service commissions generally have better enforcement than the Interstate Commerce Commission, which is a State regulatory body, and the State police, if they could be tied in, and they are not tied in with the public service commission, could police even the secondary roads. But unless you take the truck-used car lot dealer and require him to maintain safety before he sells the vehicle, you can kill somebody one block away before you get it to the inspection station.

Mr. SPRINGER. I think you are right on that point. I want to divert just a second. You are almost on my point but not quite. I don't believe the Federal Government has enough inspectors to cover these 85 million vehicles that will be on the road in another 10 years. If we have 85 million on the road I don't think the Federal Government can police them. Somehow we will have to fit this together and dovetail them.

What is your thinking in this area of how we could dovetail Federal enforcement with State enforcement, which you will have to have. You talk about the gray-area operator. He will not get out on the Interstate Highway System. He is operating between Podunk and Smithville.

Mr. HOFFA. No, he is operating in competition with the private carrier and the common carrier.

Mr. SPRINGER. I will say that is probably true. He is. You have named outstanding instances between Florida and New York. But I can name you some in Illinois that never go outside of five counties.

Mr. HOFFA. And you are one of the few States in the country that do not have a public service commission. Last time, they got it through the legislature but the Governor would not sign it.

Mr. SPRINGER. Then do you have a suggestion, which is what I am trying to get from you, as to how we can use this?



Mr. HOFFA. We did. We submitted this to the senate and the house in Springfield and got the bill passed in regard to setting up safety regulations, as well as controlling the gray area carrier, and then the Government refused to sign it.

In the last session, we were able to get the same bill reinstated but no funds to enforce it. The problem is very simple: While it is true you cannot go out and police 85 million automobiles, you can police all the trucks. There is just no question about it. They are from point to point. They don't just spring out of a side street. They go point to point.

If you follow what I am talking about in this enforcement part of the provision, where the gray area is controlled by the shipper and distributor and the dispatcher controls the safety of the trucks at the terminals, where they must operate by permits, you can then take care of the question of the 85 million by eliminating off the highway, as we have tried to do in most of the States, all cars that are over 12 years of age, and then finally work it down to about 10.

No matter how much maintenance you put into a 12-year-old automobile, you are not going to maintain that car sufficiently because of metal fatigue, if nothing else, to be safe in regard to meeting the standards of a 1966 car. He just can't stop nor can he handle it under the same conditions. So you have to get them off the highway and get new cars in their place and then police them through the agencies of checkpoints.

Mr. SPRINGER. Just one more question beyond trucks. I am trying to get at this big question of how you are going to fit the States into this. Just as a suggestion, suppose we come up here with a statute which says that this shall be applicable if the State doesn't act in this field.

Mr. HOFFA. It seems to me if you are going to have Federal funds building Federal highways and almost all cars eventually get onto Federal highways, some way, somehow, you ought to have some kind of control when they are on the Federal highways, whether pleasure cars or trucks.

Mr. SPRINGER. On the Interstate System, I think I have made a suggestion, on the Interstate System which will carry a tremendous amount of traffic.

Mr. HOFFA. Whether they are on "B" roads or not, they will get onto interstate eventually. They eventually get on the Federal highways and they can be checked as you suggested by adding a simple lane alongside the weigh station and it will solve your problem.

Mr. SPRINGER. I think what you are saying is true, and in effect we have that. But I still think there is going to be a very substantial number of people traveling on the highway who simply will not go on the Interstate System.

I am talking about automobile drivers, not about your truck drivers. What I am trying to think up here is if you have a suggestion as to how we can bring together the Federal with the State in such a way that we cover everybody.

Mr. HOFFA. If you are going to leave it to the State legislatures, where most of them are controlled by rural area legislators, you are not going to get any safety regulation. That has been my experience.

We introduce bills almost every year into the legislatures and when they get in, who blocks them? The rural areas.

In the metropolitan areas, the State senators and representatives vote for them. But in the majority they are outvoted when you get to the question affecting the rural areas where you have the junk on the highway.

Mr. WATSON. If the gentleman will yield, we in South Carolina feel we have a fine legislature. Generally it is referred to as a rural-controlled legislature. But I would like to take exception to the general statement that when you have a rural-controlled legislature you do not take action in this field.

Mr. HOFFA. If you go into Carolina and look at the junk coming out of there up into the East, you will find that somebody slipped up because all of the equipment coming out of Carolina is not safe equipment.

I can name you carrier after carrier that buys no new trucks at all but buys used trucks. You have some fine major carriers covered by ICC. But your private carrier and your gray area carrier coming out of the Carolinas are some of the worst.

The CHAIRMAN. Mr. Friedel.

Mr. FRIEDEL. Mr. Hoffa, I want to compliment you on your very fine statement. I think it is very constructive. You did mention about Maryland having an inspection law for used cars. We have been trying to have an inspection law passed for many years. This is the first step.

There are a few points I would like you to explain. On page 3 of your statement, at the top of the page, you state the "gray area" operator conducts a "hip pocket" operation. His address is unknown to the ICC. If he is a private carrier, he does not bother to report accidents.

If he receives a citation, he tears it up because he does not even have a post office box in many instances through which he can be reached.

I can't imagine any operator with an automobile that doesn't have a license plate which can be tracked down or where he would just tear up the ticket. Would you elaborate?

Mr. HOFFA. Go over to Sparrows Point in Maryland any one morning and you will find anywhere from 100 to 300 trucks over there, and you will find 50 percent of those trucks are gypsy equipment, and you will find that the same inspector that is over at the Sparrows Point checking equipment will pass every one of the gray area carriers and only check the regulated carriers that have terminals operating from point to point.

There is no question they have license plates, but on the other hand they are not in a position of a carrier coming out of Pennsylvania to Sparrows Point for a load of steel, who picks up a load of steel and goes back to Pennsylvania, and then goes back to Michigan. He has no location except a home.

It is not as though he is a truck terminal or a point-to-point operation. They just do not give them tickets. When they give them tickets, I maintain it, and I can prove it, that what I state in No. 1 is true, and any inspector of the ICC who wants to be honest will tell you this is what happens. He tears it up and ignores it.



The subpoena power would mean extradition to bring him back in for a hearing. They have not the time or the money to go back to enforcing those tickets that they issue to gray area operators. Nobody can refute that from the facts of the Interstate Commerce Commission's own records.

Mr. FRIEDEL. An operator has a license, no matter whether he goes to Michigan, Pennsylvania, or what, and the Commissioner of Motor Vehicles would follow through if he got a ticket.

Mr. HOFFA. The point is he doesn't. That is the point. The effort behind enforcing creates the problem of the individual rather than enforcing it, unless the fellow voluntarily comes in, he ignores it. But a carrier such as B. & P., which operates in your area, or a service, or any one of them, that has terminals, all they do is walk into the terminal and there is the equipment. They can serve the paper. But you can't serve one of those gypsies who leaves Sparrows Point. He may not come back for 6 months and when he comes back, a new driver may be on the equipment.

Mr. FRIEDEL. In your statement, you said you wished to take the opportunity to extend the invitation to any member of this committee and members of the staff to spend 2 days with you checking. I will accept that. At the first opportunity I have, I would like to see these violations in operations.

Mr. HOFFA. I am sure you know our people over there, and I am certainly sure I will be happy to be one of the committee with you. We will ask you to five locations. When you get through with that, it won't take 2 days. You will come back here and pass the most serious law you ever passed in your life on safety.

Mr. FRIEDEL. Thank you.

The CHAIRMAN. Mr. Younger.

Mr. YOUNGER. Thank you, Mr. Chairman.

Thank you, Mr. Hoffa, for your contribution to this hearing.

Do you know the magazine "Overdrive"?

Mr. HOFFA. Yes, I do.

Mr. YOUNGER. In the March issue they had quite an article where they quote the ICC figures, and they state:

The ICC accident report shows regulated carriers' accidents killed five times as many people as the gypsies and owner-operators.

Do you think those figures are true, or do they get those from the ICC? Where do they get them?

Mr. HOFFA. First of all, "Overdrive" is the gypsy-operating magazine.

Secondly, they are not accurate figures. This is an owner-operator production that you are talking about. They are not figures from the record. These that I have are figures from the record.

Mr. YOUNGER. They quote ICC figures.

Mr. HOFFA. I can quote them and misquote them, too. I say that the figures I have are from the record and those are not from the record, sir.

Mr. YOUNGER. You feel they are inaccurate?

Mr. HOFFA. Absolutely inaccurate.

Mr. YOUNGER. I think you do have some members of your union who are truck drivers for private carriers.

Mr. HOFFA. Yes, sir.

Mr. YOUNGER. Do you include the private carriers along with the unregulated carriers in your condemnation?

Mr. HOFFA. Yes, sir.

Mr. YOUNGER. They are all the same?

Mr. HOFFA. Yes, sir.

Mr. YOUNGER. In other words, the drivers that belong to your union, if they work for the private carriers, are not as careful with their trucks and so forth as those that work for the common carriers?

Mr. HOFFA. I didn't say that, sir. I said that the equipment—this all talks about equipment—the equipment for a private carrier and gypsy carrier is not maintained and serviced as it is for a regulated common carrier, contract carrier, or a regular carrier, and nobody can refute that. If anybody wants to take time out, I will take you to the truck lines, the truck points, and prove it to you, from a visual inspection. Nobody can deny it.

Mr. YOUNGER. Take these large corporations that have delivery wagons and so forth, trucks, do you include those, too?

Mr. HOFFA. I do. Very few of them have their own garages. Most of them depend upon the maintenance schedules of stations, and when the driver reports the equipment being improperly mechanically safe, they have to wait for the day to go to the garage.

If they had their own garage, they would go into the garage, be repaired. In the interim period is where the accidents come from.

I certainly do, and I deal with them every day of the week all over these United States.

Mr. YOUNGER. I think that has been brought out in the hearings that we had with the ICC before, when we had our hearings a couple of years ago on regulating trucks, that they simply did not have and could not have enough inspectors to enforce their own regulations.

Mr. HOFFA. You cut their appropriation this year.

Mr. YOUNGER. Do you think the regulations that they have put out, their safety regulations, are sufficient if they were enforced?

Mr. HOFFA. No, they are not.

Mr. YOUNGER. In other words, they are weak even on the regulations?

Mr. HOFFA. That is correct. We have had hearings with the ICC and pointed out to them the facts. We have had industry-union meetings and pointed it out to them. The sole complaint they have is, "What are we going to do about it? We don't have enough enforcement officers for the regulations we have now."

Mr. YOUNGER. Do you think another Federal bureaucracy could do better than the ICC?

Mr. HOFFA. The best evidence is that they apparently either don't know how or don't want to enforce the authority they have because nobody is going to convince me, and I have been in this business 35 years, that any State in the United States, and I don't care which one of your States it is, that if we can take seven major highways going into your State, put seven safety inspectors at those seven checkpoints, and in a week we will check 80 percent of the equipment moving into and out of that State. Yet they will not concentrate the limited number of inspectors they have to a systematic State-by-State check of



equipment. Therefore, they cannot alibi that it is merely a question of lack of funds or lack of officers. It is a lack of utilization of what they have, or a desire to enforce the rules and regulations that they themselves set up.

Mr. YOUNGER. It is maladministration?

Mr. HOFFA. There is no question about it. We have told them so many times. We debated the issue over in Atlantic City 2 years ago. They didn't have any answer for a single question we brought up. We had 400 people sitting there who deal with this equipment problem every day of the week. They want to bring up a few silly items about chemical trucks exploding or tires going out. That isn't the question at all. It is a question of tired equipment and lack of enforcement that the tired equipment is causing these accidents.

I left a film with the Senate and I will leave a copy here that will scare you right out of your automobile, where you will put rules into effect, showing drivers killing people. It is the most effective 16-millimeter picture ever put together to show what is wrong with the safety of the highway. I will be glad to leave a copy of that here for 45 minutes of edification of this committee. You will pass some laws when you see a mother, father, and three children being run over completely by a tractor-trailer, a gypsy driver who is sound asleep at the wheel. There just is no enforcement. Nobody can alibi that this enforcement couldn't be handled if they wanted to handle it. It can't be alibied.

We are in this business, and we know, 365 days a year. We know the new truck terminals being built. We know the preventive maintenance line and we know the major repair lines being installed. It is costing millions and millions of dollars to build those terminals. But there is no value of us building a million dollar terminal with all the checkpoints and some gypsy three blocks down the street not having any checkpoints and cracking up the equipment we send off with safety regulations and safety drivers because nobody put a law into effect to take them off the highway. It cannot be alibied. You cannot blame the manufacturer. You have to blame somebody in government.

Mr. YOUNGER. It is just a question of whether you can anticipate better inspections from one governmental organization than another.

Mr. HOFFA. I do.

Mr. YOUNGER. Your problem is that they simply do not do their job.

Mr. HOFFA. That is right. In aviation they do. We deal with aviation also. We are not just in trucks. We are in aviation also. Even our trucks on the fields delivering gasoline are checked just as extensively as the airplanes are. They get a 10-times better check by the aviation authorities than the Interstate Commerce Commission ever gave a truck. They rule them right off. You couldn't find a leaky tank or a tractor that is not equipped with the latest safety equipment on the airports. But you will find the same company with equipment on the highway without the same equipment safety factors as they have on the airport equipment. That is a good indication of what can happen.

Mr. YOUNGER. But we still have airplane accidents.

Mr. HOFFA. Human fatalities. Anything that is mechanical, I assume we all agree, will crack up. But if you look at the number of

them compared to the number of people who are killed by trucks——

Mr. YOUNGER. Most of the accidents, according to the CAB, result from human failure, not from particularly mechanical failure.

Mr. HOFFA. It could be both.

Mr. YOUNGER. Thank you.

The CHAIRMAN. Mr. Macdonald.

Mr. MACDONALD. Mr. Hoffa, first of all, I have to comment about your testimony and your answers to questions put to you. It is a refreshing change, the contrast, from the testimony given by the automobile manufacturers yesterday, in your blunt and direct answers. It was very difficult to get a direct answer from any of those automobile manufacturers yesterday.

I know that you are here mainly dealing with truck equipment, but inasmuch as automobiles also use the highways, and I would judge are involved in some accidents with trucks, is it your opinion that any State regulations that are now in effect throughout the United States have been effective in promoting safety on the highway?

Mr. HOFFA. Not to any great extent. The States that have the safety device check, such as Washington, D.C., all you have to do is drive down any main street, Connecticut, Massachusetts, Constitution, and what do you find? Headlights out, bumpers on the ground, and so on.

Mr. MACDONALD. I asked the question because I agree with you, and I said so yesterday to the automobile manufacturers, but it would appear that by some chemical metamorphosis, if we get pious and pass a bill that doesn't have any teeth in it, suddenly we will have safety on the highway. I don't know if you knew it, but they have changed their position since they testified on the Senate side. They changed their position to us and they now seek refuge behind something called a Vehicle Equipment Safety Commission. They say that that is the panacea, that if this committee will just utilize the services of the so-called VESC, the Vehicle Equipment Safety Commission, all our problems will be solved.

I plead ignorance because I am not an expert in this field, but until they made that proposition and did so with straight faces—I don't know if they had tongue in cheek, but their faces were straight when they made the proposition yesterday—I hadn't heard of the commission. I was wondering if the Vehicle Equipment Safety Commission deals with any of your trucks, and, if so, under what circumstances.

Mr. HOFFA. If it is around I never heard of it either, sir.

Mr. MACDONALD. I think that should take care of that. You said you had 5,000 business agents. About how many trucks would they have under their jurisdictions?

Mr. HOFFA. There are about 700,000 trucks under contract to our unions.

Mr. MACDONALD. 700,000 trucks and the inspection of those trucks would be done by a commission that may be in existence. I don't say the people were not telling the truth but up to now you have never heard of it?

Mr. HOFFA. I have never heard of it. I have been around for 35 years and I never heard of it to this date.



Mr. MACDONALD. I am glad I am not as unaware as I thought I was yesterday.

Another factor that came into some questions I asked, which the manufacturers denied, was this: They said that speed was not a factor in accidents on the road, that speed had very little correlation with death and maiming our people on the roads. I saw in your testimony on page 11 something that seemed to indicate that you felt that speed was a factor in accidents. Was I correct in inferring that?

Mr. HOFFA. Apparently they don't drive or go on the highways. But if anybody does not believe speed is the cause of accidents, then go out and talk to any State police inspector as to what he has observed that created the accidents on the highways and see if it isn't speed.

Mr. MACDONALD. Thank you very much, Mr. Hoffa.

Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Devine.

Mr. DEVINE. Thank you, Mr. Chairman.

Mr. Hoffa, I think your statement is quite concise and has contributed to the record.

In summarizing it, I get the impression that you are not interested in any discretionary authority, but you think the regulations should be mandatory in nature as far as safety standards are concerned, as far as inspection is concerned, and that it would relate to all phases of transportation. I also conclude that you feel that the regulations adopted by the Federal Aviation Agency could well be employed by the ICC, and that the enforcement by the ICC is miserable. In fact, you devote several pages of your statement to a critique on the exercising of the authority they have. You feel that this legislation should apply not only to new equipment but also used equipment. I also get the impression that perhaps you might be using either the committee or the Congress to help negotiate some of your contracts as far as the cabs' sizes are concerned, and not only as far as air conditioning is concerned but other safety devices. Do you agree with that statement?

Mr. HOFFA. No, I don't. I don't need this committee for anything. We are perfectly able to take care of ourselves in contract negotiations. The only thing I would like to have this committee do is set the record straight and pass some laws that the record, itself, points out must be passed. You talk about the width of a cab. That is not a contract regulation. That is a safety regulation. A man cannot sit in a cab that is straight up and down and drive 10 hours and be a safe driver. He will go to sleep. Anybody that knows anything about truck cabs knows there has to be a contour movement in that cab where the bouncing of the unit will keep the driver alert for safety purposes. I am not trying to negotiate anything here. As far as sleeper cabs having the air conditioner, that is in my contracts. I assure you that the items I have here will be in the next contract or we won't drive the equipment. What I am trying to get you to do, if you will, is to recognize that while we represent the professional driver with regulated, unregulated, and private carriers, there are hundreds of thousands of other equipments that nobody represents that are owned by individuals, who can kill just as many people as the regulated carrier can kill unless there are mandatory laws passed by this committee on mandatory inspection. Unless that is done, you will never solve the problem.

Mr. DEVINE. Specifically, you were referring to the antijackknife device.

Mr. HOFFA. This has been perfected. Anything that is perfected, we put into our contract. These units that I am talking about have been perfected in the last 3 years. Our contract is coming up this November for the next 3 years. We will put these things in and we will regulate our people or we will not drive the equipment. I would like to keep impressing on you the idea that we don't represent all the trucks on the highway, and, therefore, those trucks not represented, that we cannot take care of by contract provisions, have to have some Federal law.

Mr. DEVINE. Getting into a related area but slightly different, do you have an opinion as to whether or not the State inspections of automobiles and trucks are effective or have any value as far as safety is concerned?

Mr. HOFFA. Certainly they are a help but they are not effective. As I stated before, in answer to a previous question by Mr. Macdonald, you will find that in those very States, and to take the New England States who have rigid inspection, you will have as much junk equipment and junk automobiles on the highway as anywhere in the country. As long as there will not be any law, but it is left to a voluntary question of inspection, where there is no penalty of any great substance, you are not going to correct this problem.

Mr. DEVINE. How do you find the State of Pennsylvania?

Mr. HOFFA. Pennsylvania has the most rigid rules there are, and I would say have as good a safety inspection as there is in this whole country, both on trucks and passenger cars.

Mr. DEVINE. Would you recommend, perhaps, that there should be a Federal inspection set up rather than the rules and regulations by the various States?

Mr. HOFFA. You will come to it eventually.

Mr. DEVINE. I believe that is all.

Thank you very much.

The CHAIRMAN. Mr. MOSS.

Mr. MOSS. Mr. Hoffa, first let me say that another committee meeting made it impossible for me to be here and hear your statement. I was in another committee meeting. In that committee we adopted an investigative report quite critical of the ICC for its failures to enforce adequate safety standards on railroad equipment.

Mr. HOFFA. Thank you. Maybe that will wake them up.

Mr. MOSS. I am pleased to learn of the concern of your union in its contract negotiations to secure the incorporation of safety standards on those pieces of equipment that you can influence. I, for one, am perfectly willing, as a Member of Congress, to shoulder my responsibility and vote for a very strong and effective immediate program of safety standards. I think they have been far too long deferred. I don't think we can justify slaughter, and that is what occurs on our highways every day, either through faulty equipment, maladministration of government, or weakness of government. I think the time for drastic action is long overdue, and I hope that the support of organizations such as yours, the men and women who make up the membership of the Teamsters organization, and the



great American public will become sufficiently indignant to see that we not stop our labors here until we have enacted a full effective program.

Mr. HOFFA. I thank you. I would just like to comment on the question of California for a moment. If you take the gypsy trucks pulling up out of the valley with produce and trying to meet the schedule of the major markets, I think without saying any more you will know why we need regulation to govern that type of equipment.

Mr. MOSS. I think it is needed very hurriedly.

Mr. HOFFA. You have flat racks 14 high, with 2 chain binders holding the crates together. You know what happens when you put that brake on. She flies like a deck of cards all over the highway.

Mr. MOSS. I don't think we can meet this need with the heavy interstate movement of traffic with 50 different laws. I think we will have to have a single effective law.

Mr. HOFFA. Thank you. I appreciate what you are saying.

Mr. MOSS. Thank you.

The CHAIRMAN. Mr. Curtin.

Mr. CURTIN. Thank you, Mr. Chairman.

Mr. Hoffa, I appreciate your high regard for our laws and inspections of motor vehicles in Pennsylvania. We are rather proud of them.

You speak of the "gray area" operators. Do your contracts reach into many of these companies that would be so classified as "gray area" operators?

Mr. HOFFA. If they are fleet operators and not individual owners, yes.

Mr. CURTIN. As a result of these contracts, are you able in any way to regulate the safety of the trucks that your operators are driving?

Mr. HOFFA. Not to the degree we can with the point-to-point operator who has terminals.

Mr. CURTIN. Why can't you?

Mr. HOFFA. First of all, most of the equipment in the gray area is owner-driver equipment, and the owner-driver equipment does not get the safety factors that accompany driver equipment will get for two reason: No. 1, cost; No. 2, the desire to roll more miles than is normally rolled by a permitted carrier because of the located commodity that he is hauling at a rate less than the present described tariff rate of the regulated carrier.

Mr. CURTIN. Thank you, Mr. Hoffa.

That is all, Mr. Chairman.

The CHAIRMAN. Mr. Rogers.

Mr. ROGERS of Florida. Thank you very much, Mr. Chairman.

Mr. Hoffa, I am impressed with your statement, and I, too, have felt the thrust of this proposed legislation although I think it would do good and has necessary features in trying to improve the safety standards to incorporate in new vehicles, but we are overlooking the main problem, which are those cars and trucks on the road that are not new. The new ones make up about 10 percent of those on the road each year. I think your suggestion on page 8, that used truck dealers must comply with mandatory safety standards before resale, ought not to just apply to trucks but to automobiles as well. I took this up

in questioning yesterday with the automobile manufacturers, as to why their dealers could not be required to check their cars for safety, for all of the safety features, and certify that they meet the safety standards that might be established as a result of this law before they are resolved. It seems to me unless we get into this area we are not even beginning to touch the problem, are we?

Mr. HOFFA. I certainly agree with you. I mention trucks only because generally most States have some sort of requirements dealing with the sales of used cars, supposedly with regard to safety, though I agree they are not effective. They are generally handled by the safety regulations and trucks are not, unfortunately.

Mr. ROGERS of Florida. But, you see, I think only about 20 States have safety inspection of automobiles, so it is not touched in many States at all.

Mr. HOFFA. That is right.

Mr. ROGERS of Florida. I would think that the resale proposal is one way of trying to help meet the problem of the increased death and injury rate.

Mr. HOFFA. And not let even the most perfect 12- or 15-year-old automobile get off that lot to be resolved.

Mr. ROGERS of Florida. Do you see in the future the possibility that cars of a certain age or trucks of a certain age are going to have to be barred from interstate highways?

Mr. HOFFA. I don't see any other way to do it. If you take the salt and the chemicals we are putting on the removal of snow alone and look at the deterioration of the metal and the rubber around the bottom of the automobile, and no matter how much you fill that in with lead and gloss it over as they do with paint there is still metal fatigue there to the point that the equipment traveling on the major Federal highways at a high excess speed create problems that will never be corrected unless they are removed from the highway.

Mr. ROGERS of Florida. Thank you very much, Mr. Chairman.

Thank you, Mr. Hoffa.

The CHAIRMAN. Mr. Cunningham.

Mr. CUNNINGHAM. Thank you, Mr. Chairman.

Mr. Hoffa, your testimony is a major contribution to our study of this problem. You have been in this business for 35 years and I consider you what is known as an expert witness. Unfortunately, there are some people who have testified who are not experts in this field, and there are some who have testified because they write books for publicity and profit, and they don't know what they are talking about. I have worked with your drivers in safety work for many years. We call your drivers professional drivers and they are very proud of the job they do. They feel that by their good driving habits they set a pattern for the other people who are not as well trained. We have had seminars, when I was in this field, with your drivers as leaders of discussion groups and lecturers before those who are not considered professional drivers.

In your opinion, sir, and I presume you have read this bill and have knowledge of it, if this bill should be passed, in view of the fact that we have laws on the books now that are not being enforced, we know the ICC is not doing its job—I don't criticize them as I know they



have a lack of funds—we do have laws on the books, and if these laws on the books were enforced, is there need for the bill that is now before us to solve this problem?

Mr. HOFFA. I don't think the bill in regard to the manufacturing of the new cars is as important as the safety factors dealing with the question of the used trucks, used cars, and the mandatory Federal inspection of the automobile and truck on the highway.

So far as being enforced is concerned, there is certainly a law against the drunken driving in every State. I don't know of any that does not have that law. But if you look at the accident fatality list, you will find that on the weekends whisky is involved in about 85 percent of them. I don't know how we will do it, but we can't take the position, either, that we are not going to put laws on the books and enforce them, no matter what it costs, if we are going to kill such a great number of people. It will become a hazard to even go out on the highway.

I don't go out on the highway on Saturday and Sunday very often with my car for the reason that I don't care to become involved in an accident. All you have to do is drive in Maryland, Virginia, or the District of Columbia on a weekend and you will know what I am talking about. You have to be a dodger.

Mr. CUNNINGHAM. I agree with you. I don't drive on weekends either for that very reason.

Mr. HOFFA. Let me say this, Mr. Cunningham: Laws have to be enforced and rigidly enforced. The trouble is there is not sufficient penalty. Take a truckline out of Nebraska, for instance, and you have a lot of big carriers coming through Nebraska with some of the finest equipment in the United States, coming from the west coast in relays. You take that equipment as compared to the livestock trucks, other than the regulated livestock trucks, and you cannot compare the two of them.

Mr. CUNNINGHAM. I wanted to get to that in a moment.

I am only speaking of the over-the-road trucker, the professional driver. If there was adequate enforcement of the laws we have on the books, would not that relieve a great share of this problem?

Mr. HOFFA. Ninety percent of the professional drivers' problems would be over, yes, if we had enforcement. But it would not take care of the failure to put mechanical devices on the equipment that is available that would prevent more accidents, or it would mean less accidents happening, for the matter of a few hundred dollars.

Mr. CUNNINGHAM. I am familiar with the gypsy operators, and we have a lot of them. They are the most dangerous trucks on the highway. I will stand by that statement and I can prove it. For example, I would say that 98 percent of them don't have splash guards. On your trucks, you do have splash guards but they are not always effective. Is that the responsibility of the carrier, to have a splash guard so that when this truck is proceeding on a wet highway it does not throw a lot of mud, rain, and dirt on the windshield and blind the driver? Whose responsibility is it to have an adequate splash guard?

Mr. HOFFA. That is the Interstate Commerce Commission regulation requiring the permitted carriers to have splash guards. It is the

carrier's responsibility. I may say the splash guards have to be approved by the ICC.

Mr. CUNNINGHAM. Would you possibly agree with me that the splash guard is not as effective as it should be?

Mr. HOFFA. There is just no question about it, because of the type traction of the new dual wheels, which throws it from up under, not from the top over, as they originally made their regulation.

Mr. CUNNINGHAM. Is there any way in your labor-management contracts that you can insist in having adequate safety features, particularly—and just using this one illustration—in splash guards?

Mr. HOFFA. We were the original moving factor in getting splash guards on equipment. When we presented this as a contract proposal, our carriers objected to it on the grounds that it was not required by law. We pointed out the safety factor. It took almost 3 years to convince the carriers and the Interstate Commerce Commission of the necessity of having the splash guards on the trucks. We do reserve the right that if they are not properly installed, not to take the equipment on the road. But since they are manufactured in about 12 different companies, and there is only a certain type you can install, we have to take the types that are approved by the Interstate Commerce Commission or we could not roll the trucks to make a living. They need to be revamped.

Mr. CUNNINGHAM. And they may be properly installed but they are not adequate. They don't do the job.

Mr. HOFFA. They don't swing down and take the dip up. That is the problem. Any commercial driver or any experienced driver will tell you that the splash guards today are not properly curved in to fit the wheel where the 920's throw from the top instead of the bottom.

If you are familiar with trucks, you know what I mean by 920's.

Mr. CUNNINGHAM. So it is these things that are causing accidents, too.

Mr. HOFFA. You will remember the halftrack cab that came out with on-yellow transit, running through that area, where the truck coming on the lefthand side would throw the entire splash up and blind the driver? We had to have a strike to get that equipment off the highway, because the Interstate Commerce Commission had approved the half cab units that any commercial driver or professional driver knew was not a safe piece of equipment.

Mr. CUNNINGHAM. There are a lot of people that blame the truckers for a lot of things, including accidents, but I agree with you it is the gypsy operator, the owner-operator, with a piece of poor equipment, who is the major contributor to these so-called truck accidents, and your whole industry, including you people, get bad publicity and a black eye, and it isn't your fault, in my opinion.

Mr. HOFFA. The headline will read "Truck Involved in Accident." That means that the professional driver as well as the gypsy that day had everybody on the road saying, "Take the trucks off the highway."

Mr. CUNNINGHAM. Mr. Hoffa, in conclusion, you don't use seat belts, do you?

Mr. HOFFA. Do you mean in our units? No, we do not.

Mr. CUNNINGHAM. Would they, in view of the fact that there are a lot of nonprofessional drivers, just ordinary people driving, who cause accidents, be of any help in protecting your drivers?



Mr. HOFFA. I don't believe so. There is just as much danger with a seat belt with a tractor as there is without a seat belt. You can get hemmed in with a fire, hemmed in with a front end wreck or a side-swipe and if you have a seat belt you may be in a position not to get out. So it is optional to the driver whether he want it or not. But generally the professional driver prefers not to use the seat belt.

Mr. CUNNINGHAM. I wanted to get your judgment on that.

In conclusion again, I hope this committee will listen to those people who know something about this problem, so-called expert witnesses, of which I am convinced Mr. Hoffa is one.

The CHAIRMAN. Mr. Kornegay.

Mr. KORNEGAY. Thank you, Mr. Chairman.

Mr. Hoffa, I think you have made a fine statement with certainly forthright answers to the questions.

Last year, the 89th Congress passed H.R. 541, which is now Public Law 89-17, which provided, among other things, for more State and Federal cooperation for the enforcement of State and Federal safety laws and regulations.

Do you feel that that has been of any assistance in the area that we are talking about on highway safety?

Mr. HOFFA. It takes effect 5 years after passage of the act, doesn't it? The States don't have to adopt any of that regulation for a period of 5 years.

Mr. KORNEGAY. Maybe another way to put the question to you is: What, if anything, has happened pursuant to that act so far?

Mr. HOFFA. Nothing. Nothing has changed from the professional truck drivers, the gray area, or the common carriers in the last 15 years.

Mr. KORNEGAY. In other words, the ICC has made no effort to enter into any agreements with any of the States to cooperate in the enforcement of safety provisions?

Mr. HOFFA. If they have, I am certainly unaware of it. I think I am alerted by our representatives in every State as to what is happening.

Mr. KORNEGAY. Your suggestion that these weighing stations, particularly along the interstate roads, could be easily adapted to and used for inspection stations is appealing to me. There would have to be some physical alterations to take care of it. It wouldn't take too much longer for a truck to go through inspection as well as for weighing.

My question is this: Should we have Federal inspectors there, under the authority of this act that I referred to, or any other authority, or depend upon the State officials to do the safety inspection?

Mr. HOFFA. I think you would need a combination of both, both State and Federal. The PUC inspectors, the State police and the Federal Government working in conjunction could cover it around the clock.

Mr. KORNEGAY. Would that be one of the most effective ways of getting rid of the gypsies that are on the highways?

Mr. HOFFA. There is no question about it.

Mr. KORNEGAY. I agree with you that that type of operation is certainly a cause, so far as trucks are concerned, of accidents. I think the average person has a very high regard for the professional driver. I know I have such a high regard. The main complaint I have with them is tailgating, and I think that goes on too much. I know in

driving back and forth from my home to Washington there is one stretch of the road particularly where a lot of that seems to go on, and the automobile driver who is impatient has trouble getting around.

This radar device you were talking about a while ago, would that be an aid against tailgating?

Mr. HOFFA. It would almost 100 percent stop it, there is no question about it. If the unit got too close to the units ahead of it, it would stop automatically. Once the driver finds out there is no value of getting so close because his equipment will stop, he will stay back the 500 feet he is supposed to stay back.

Mr. KORNEGAY. Is 500 feet the regulation?

Mr. HOFFA. Yes.

Mr. KORNEGAY. With reference to your suggestion, which is a good one, that this antijackknifing equipment be added to trucks, that situation probably causes as many accidents with big trucks as any other factor.

Mr. HOFFA. Also the stabilizer, where when the unit blows a tire it will not skid off the road one way or another. You can blow a tire and that stabilizer will stay right in line. It cannot go off the road one way or another. It will stay right in line.

Mr. KORNEGAY. This business of the antijackknife equipment, with the cost being \$75 with \$25 for installation, that seems to be a moderate cost for the benefits derived from it.

What has been the reason that this type of equipment has not been universally installed on equipment?

Mr. HOFFA. They don't have to. It is that simple. Only do what you have to in regard to cost.

Mr. KORNEGAY. It looks to me like it might reduce insurance rates.

Mr. HOFFA. Most of them carry their own. Most of the trucks today carry their own limited insurance and then carry the override with insurance companies.

Mr. KORNEGAY. Your recommendation is that all trucks over 10 years of age be presumed to be unsafe and, therefore, be taken off the highways. Would you have any thoughts about a similar provision with regard to automobiles?

Mr. HOFFA. Ten to twelve years.

Mr. KORNEGAY. In other words, after they are that old, like the old racehorse, put it out in the pasture.

Mr. HOFFA. At least the racehorse will not kill anybody. The car will kill somebody and even a truck.

Mr. KORNEGAY. They don't even keep the racehorse, as a matter of fact, after they reach a certain age.

I will be glad to yield to my friend from Florida.

Mr. ROGERS of Florida. Can the stabilizer also be placed on automobiles as well?

Mr. HOFFA. It has not been adapted, but I would assume it could be. It has not been adapted yet to it. The gentleman is here who represents the stabilizer. We saw the picture this morning again to refresh my memory about it before we came over here.

If you would just take a matter 7 or 8 minutes and look at that film you would be thoroughly convinced that nothing should be allowed to be on the highway without those two units on it.



Mr. ROGERS of Florida. But no effort has been made to adapt it to the automobile or place it on the automobile?

Mr. HOFFA. Not to my knowledge, unless this gentleman who is the expert can tell me.

I am advised they have some available but I don't believe they are in the position that the truck stabilizer is in at this moment.

Mr. ROGERS of Florida. This is amazing because I would think this would be a very high safety device for automobiles.

Mr. HOFFA. There is no question about it.

Mr. ROGERS of Florida. Thank you.

Mr. KORNEGAY. I yield to the gentleman from Massachusetts.

Mr. MACDONALD. Mr. Hoffa, you keep talking about professional truckdrivers. Do you mean to say we have amateur truckdrivers?

Mr. HOFFA. You take a piece of equipment that is leased to anybody from any one of the leasing agencies and all you have to do is go out and show a chauffeur's license if you never drove equipment in your life.

Mr. MACDONALD. To drive one of those big rigs you can just go in and hire them?

Mr. HOFFA. Anywhere here in Washington. Just go over on New York Avenue and rent one and take it off.

Mr. KORNEGAY. The U-Haul.

Mr. HOFFA. Yes, sir.

Mr. MACDONALD. I am not talking about the U-Hauls. I am talking about the big tractors and trailers.

Mr. HOFFA. Forty-five footers, you can take it over here and rent it with a 40,000-pound load on it and you can take off with nobody bothering you.

Mr. KORNEGAY. The gentleman from South Carolina raised a point that I want to ask about.

Did you say most of the junk was coming out of the Northeast and going into the South?

Mr. HOFFA. I said if you go into the South and look at the equipment coming out of there hauling uncrated furniture and some of the merchandise in lumber up to here, look at the junk, you will wonder how it got on the highway.

Mr. KORNEGAY. You are talking about trucks and not automobiles?

Mr. HOFFA. I am talking about both. Go down and take a look.

Mr. KORNEGAY. I suspect you are right about trucks, but I want to say as a constant observer of the main highway between here and North Carolina, these junk automobiles are going south and not coming from there to here. They take taxicabs, paint them over and put 2 gallons of gas in them and sell them for schoolteachers' automobiles.

Mr. HOFFA. Come up Route 1 some evening.

Mr. KORNEGAY. Let me say this in conclusion. I think you have pointed up some real deficiencies in the bill. Several of us on the committee have thought about this one point about what happens to the automobile after it is sold. Would it be wiser to have it in tiptop shape, with the most important safety features on it when it is resold?

This business of the driver and the highway are also important if we are going to really do an effective job in improving the very dangerous condition which exists on the highways today.

Thank you very much.

Mr. HOFFA. Thank you, sir.

The CHAIRMAN. Mr. Pickle.

Mr. PICKLE. In your testimony, Mr. Hoffa, you have primarily concerned yourself with the element of safety as pertains to trucks. I can understand that, because that is your industry. I have two questions to ask you. Let me preface them first by making this observation: During the past few weeks we have heard considerable testimony from both the other side and here about the problem we are facing, and there has been a temptation in many respects to say that the automobile manufacturer is the culprit and all he has to do is make a safer car.

It is my personal opinion that the American manufacturers make the best automobile in the world and he is going to make what the public asks. It is unfair to say that he does not make a good car and that they are derelict and cause all of these accidents.

I think from your testimony you said earlier that the main cause of accidents is individuals, and I think we all agree that the human element enters into it. It isn't correct, though, to say that we have a bunch of wild drivers just in itself.

It isn't correct to say that the States have been altogether derelict, whether it is urban or rural population. The truth of the matter is that this is an overall problem, and each segment has to fit into the picture to try to arrive at what will be these kinds of standards and mandatory requirements.

It is not a matter, really, of if we are going to have these standards. We must adopt these standards. All of these segments have to fit into the picture. I think we really ought to stop pointing a finger at any one section over and above another.

The question is, and what I have tried to get from the automobile people yesterday as my first question, if we establish these standards and these guidelines, how do we set up the machinery to do it so that we can be fair to all the elements, whether it is the individual, whether it is the trucking industry, whether it is the States, or whether it is the manufacturer?

What standards and guidelines do we use to set up the machinery to establish these standards? What would you recommend as a representative of your industry?

Mr. HOFFA. I tried to outline in my statement the safety checkpoints concerning the hours of service, the mandatory requirement for checking equipment for safety factors. I think we have to recognize, as you stated, that we have the finest proving grounds in the world for safety factors in automobiles and trucks every single year.

Yet when they get off the production line and get out in the field, and human beings get behind them or human beings own them, there is not anything you can do except have constant vigilance in checking whether the equipment is safe and, as you do professional drivers, they have to have a physical once a year, a rigid physical once a year, they have to determine their driving ability based upon the number of hours that they drive and the safety awards that are given to them every year.

I don't know how you are going to change the human factor, but the mechanical factor can be changed by what I believe I have said



in answer to questions so far, of checklines for equipment, the placing of responsibility on used car and used truck dealers, and the putting on of safety devices that are available to maintain that equipment to start and finish.

Mr. PICKLE. You list checkpoints, physical examination, hours of driving of the used car operator. Those are procedures that you would follow once you set up the standards, but how do we arrive at the standards?

Let me rephrase it for you. We say that the Secretary is going to establish these things, and you say they ought to be mandatory. I rather believe that is correct.

Are you just going to call in a representative of the automobile industry, the manufacturers, the trucking people, the enforcement officers of the States, and just let them talk with the Secretary and he would finally say, "These are the standards and we are going to set them up," or do you think this committee and the Congress ought to say there ought to be certain representatives of certain segments of it that would have a mandatory voice in establishing these things? Or would you just leave it up to the Secretary?

Mr. HOFFA. No; I think every segment from the production through sales through usage ought to be involved in formulating the rules.

Mr. PICKLE. As an official part of the consideration or as part of the act?

Mr. HOFFA. I don't think they should have a right to lay down the rules. I think they should have a right to present evidence and reasons why. But if you leave it to them to formulate the rules, you will never get it through. You will just get discussion.

Mr. PICKLE. I agree with that point.

Mr. HOFFA. The Secretary, after accumulating the evidence and the reasons why, will have to lay down the rules and say, "This is it, period."

Mr. PICKLE. Then you are saying if we had a proper advisory committee working with the Secretary after due consideration he should be authorized to set the mandatory standards?

Mr. HOFFA. Yes, sir.

Mr. PICKLE. Then that will lead to my next question, which I think has been partially answered. You said once you set up these checkpoints and the standards that are established, then we ought to require each checkpoint in the States to double or triple their operations. We get to the heart of it, as far as I am concerned.

Would these be Federal or State inspectors?

Mr. HOFFA. A combination of both.

Mr. PICKLE. Earlier you said, "We are going to eventually end up with Federal inspectors."

Mr. HOFFA. I think so.

Mr. PICKLE. You left the impression earlier that eventually we will have all Federal inspectors. I don't agree with that point at all because I think if we have any kind of a safety procedure now on design, manufacture, enforcement, it has been because the States have carried forth their part of the responsibility.

You may think they have done a poor job, and in some respects they have. Overall, they have tried to make improvements. Still the State

is the enforcement officer. We have a basic question in this legislation, and that is if we will have Federal inspectors eventually, then we get into the Federal police state.

Mr. HOFFA. I was talking primarily about trucks. I don't think you will get into any Federal police state if you are talking primarily about commercial vehicles. Maybe if you get into the question of the individual private citizen owning an automobile you can create a situation where I suppose you could be stopped on every corner and checked, if you had too many inspectors, if certain people didn't like the area you were operating in.

Mr. PICKLE. I submit we are getting into that realm and it is a valid concern of the States. I, for one, will be watching that closely.

Thank you.

Mr. KORNEGAY. Will the gentleman yield?

Mr. PICKLE. Yes, I yield to the gentleman.

Mr. KORNEGAY. Mr. Hoffa, do you advocate the Federal inspection of passenger automobiles as well as commercial trucks?

Mr. HOFFA. One can kill as well as well as the other, but I think in that instance you would have to have a combination of State and Federal, and trucks ought to be Federal.

Mr. KORNEGAY. Thank you.

The CHAIRMAN. Mr. Murphy.

Mr. MURPHY. Thank you, Mr. Chairman.

I would like to congratulate Mr. Hoffa on his statement. I wasn't here for the presentation of the statement, but I did have the opportunity to read it in detail. I would like to state that this committee in the past has recommended many of the same items that Mr. Hoffa has recommended in his statement, particularly in the gray area of transportation, as well as in the enforcement procedures and increasing the size of the inspection forces of the Interstate Commerce Commission.

What effect do you think it would have on safety if the width of a truck was permitted to be raised from 96 to 102 inches?

Mr. HOFFA. I don't get your question, sir.

Mr. MURPHY. Suppose the allowable width of a truck or a motor vehicle operating on a highway was raised from 96 to 102 inches. What effect would that have on the safety?

Mr. HOFFA. None. What is the difference?

Mr. MURPHY. It would have no effect?

Mr. HOFFA. I don't know of any effect it would have. It went from 18 foot to 45 already, and we went from 6 foot to 18 already.

Mr. MURPHY. This is one width.

Mr. HOFFA. Take width. We have increased width three times in the Interstate Commerce Commission and it hasn't affected the safety any.

Mr. MURPHY. I am inclined to agree with that, from the fact that our highways have gotten wider and the lanes increased, with the professionals doing the driving.

I was reminded of some things that happened in the past when you brought up the question of these inspection and weighing stations.

It seems to me that the fastest reporting agency and intelligence system in the world are the professional truck drivers notifying each other as to the location of these stations so they can all dodge them.



Mr. HOFFA. It can't happen. You will not find a professional driver dodging a weight station for two reasons: First of all, he will be fined and suspended, and; secondly, he is subject to being fired. You will find the gypsy trucks going around the weigh station. But on his manifest sheet, and you know something about trucking, on his manifest sheet is designated the routes he must travel. He cannot duck the scales. It just can't happen.

Take your own State of New York. How are you going to go up to the Catskills if you are ducking around the weigh station? How will you get up there with a 40-foot unit? How will you get to Buffalo on a side road with a 45 unit? How would you get up there with the doubles you allow? It couldn't be done.

Mr. MURPHY. I would say that the problems are more not on the Interstate Highway System but more on the secondary roads.

Mr. HOFFA. Very few commercial trucks, other than peddle trucks or city trucks, are on secondary roads. Primarily the trucks are on Federal highways or "A" roads. They don't go off back on the cowpaths or on a black top road. They are over on the concrete.

The answer is very simple. The manifest sheet designates the routes you shall travel. The Interstate Commerce Commission or the State Public Commission, if they find you are avoiding the scales, you will not avoid them very long. It doesn't happen that way.

Mr. MURPHY. How long has this antijackknifing device been out?

Mr. HOFFA. Four years, to my knowledge.

Mr. MURPHY. Is it patented yet?

Mr. HOFFA. The patent is pending.

Mr. MARSHALL. We have patents pending in North America and in the world. It is an English invention. We have had it on the trucks in England now for 3 years.

Mr. HOFFA. The ones in New York are patented.

Mr. MURPHY. I haven't seen it in operation but it certainly sounds like a very worthy safety device. Of course, the ICC requires breakaway valves and, therefore, all vehicles have breakaway valves.

Mr. HOFFA. That deals with the single air line going out. That doesn't deal with the question of jackknifing. That is the air lines, primarily.

Mr. MURPHY. I have no further questions.

The CHAIRMAN. Mr. Mackay.

Mr. MACKAY. Thank you, Mr. Chairman.

I would like to thank you, Mr. Hoffa, for the most illuminating testimony you have given, and I would like to submit to you 28 questions. I will not state them here in the interest of time.

I have been interested in your reference to the FAA and its effectiveness in achieving safety for air passengers.

I would like to ask you if you would support a National Traffic Safety Agency which would watch over the safety of the American people; that is, the total environment, the total traffic environment. This doesn't mean such an agency would be given all legal power but positively the responsibility to consider the total traffic environment in the way that the FAA does in aviation.

Mr. HOFFA. The single unit, you mean?

Mr. MACKAY. Yes; a single department.

Mr. HOFFA. I certainly do.

Mr. MACKAY. If we don't get a Department of Transportation this would require the establishment of such an agency in the Department of Commerce, would it not?

Mr. HOFFA. That is right. Sidney tells me in the transportation bill there is a recommendation for such an agency.

Mr. MACKAY. I would like to submit to you 28 questions, I will be grateful to receive your answers.

Mr. HOFFA. I will be happy to give you an answer to them if I know the answers. I will mail it back to you.

Mr. MACKAY. We have had all kinds of charges and counter-charges, unsupported by really reliable data. Do you agree that an agency of the Federal Government should be given explicit duty to gather data that is relevant to the determination of the causes of traffic accidents and resulting injuries and deaths?

Mr. HOFFA. They have to do it. You can't keep killing 50,000 and 100,000 people a year and not take some recognition of it.

Mr. MACKAY. Would you favor the establishment of a traffic safety research center that has a mandatory duty to conduct research into every facet of traffic safety?

Mr. HOFFA. It would certainly help. There is no question about it. In return they can give their information to the Secretary who, in return, could make the necessary rules.

Mr. MACKAY. And you have already testified that you do support mandatory traffic safety standards for all motor vehicles?

Mr. HOFFA. That is right.

Mr. MACKAY. I just want to comment to you that one of your officials in my district who has participated with me in some of my work was in a tragic accident recently that took two lives. He is going through great agony because of his experience there.

Mr. HOFFA. I am familiar with that.

Mr. MACKAY. It occurred on Highway I-20, on which there have been 42 accidents and 8 fatalities this year which they believe have to do with hydroplaning. Have you encountered the problem of hydroplaning of equipment on the Interstate System where water accumulates?

Mr. HOFFA. So bad that in many instances the drivers who were familiar with the highway just slowed down completely and crept through.

Mr. MACKAY. Does anybody have the legal duty now to do something about a terribly dangerous situation like that?

Mr. HOFFA. Not to my knowledge. It is just every spring and fall we have it in the same locations. It is a dip.

Mr. MACKAY. I want to anticipate Congressman Farnsley's comments about lighting highways.

The Interstate System when it reaches my district in northeast Atlanta is not lighted, although it is a heavy, built-up urban area. Is the lighting of a heavily traveled interstate system in an urban area essential to safety?

Mr. HOFFA. I wouldn't think so with the proper equipment.

Mr. MACKAY. I will yield to Mr. Farnsley for that matter, then.

I have no further questions, Mr. Chairman.



The CHAIRMAN. Are the questions that you gave to Mr. Hoffa already in the record?

Mr. MACKAY. Yes.

The CHAIRMAN. Would you submit the answers for the record, Mr. Hoffa?

Mr. HOFFA. Yes, sir; I will.

(The reply, when submitted, will be found in the committee files.)

The CHAIRMAN. Mr. Gilligan.

Mr. GILLIGAN. Thank you, Mr. Chairman.

Mr. Hoffa, I have no specific questions for you.

I thank you for your testimony today.

Mr. HOFFA. Thank you.

The CHAIRMAN. Mr. Farnsley.

Mr. FARNSLEY. Do you have the percentage of miles driven by trucks in daytime and that at night?

Mr. HOFFA. Most of the highway trucks are driven at night. I would say 60 percent. That is, except the intra, and that is by day. Interstate is by night and the intra is by day.

Mr. FARNSLEY. Thank you. That is all.

The CHAIRMAN. Mr. Adams.

Mr. ADAMS. Mr. Hoffa, would you agree that original equipment cost will affect the operating capital expenses involved to go into the operating business?

Mr. HOFFA. I don't gather what you mean by that. I must have missed something.

Mr. ADAMS. You mentioned in your testimony, I believe, that if certain regulations were applied, it would put all of the gypsies out of business.

Mr. HOFFA. I didn't say that. That is what the Interstate Commerce Commission said in regard to enforcement and we disagree with that.

Mr. ADAMS. All right. I will go back to my other question. I will phrase it another way.

In determining the number of standards which you would apply to an industry, going all the way from the basic minimum regulations such as we have been talking about, to, for example, requiring a preventive maintenance line in every company, there are variable standards. At some point is the degree of particular equipment or regulation requiring safety standards going to determine whether or not a person can or cannot go into business?

Mr. HOFFA. I would certainly not think so. If you don't want to have a maintenance line, take out a maintenance policy. If you don't want to spend \$100,000 for a line, take out a policy at a cent a mile or 5 cents a mile for preventive maintenance.

Mr. ADAMS. Suppose we require that no one shall use a truck more than 5 years old as opposed to a truck that is 8 years old. That is going to directly affect the cost of doing business for anyone desiring to enter the trucking business.

Mr. HOFFA. They write it off in 3 and 5.

Mr. ADAMS. How will it affect the cost?

Mr. HOFFA. If you are doing any business at all, it will not cost you anything for the unit. The unit is \$13,000, for instance, where you write it off in 3 or 5, or run it for 10.

Mr. ADAMS. What is the cost of a 4-year-old unit?

Mr. HOFFA. A 4-year-old piece? Are you talking about a used piece?

Mr. ADAMS. Yes.

Mr. HOFFA. It is according to what condition it is in and how many miles.

Mr. ADAMS. In good condition?

Mr. HOFFA. I would say about 50 percent of the original cost.

Mr. ADAMS. And 8 years old?

Mr. HOFFA. I would suppose again about 50 percent. When it gets to less than 50 percent the equipment is worn out and will not be resold.

Mr. ADAMS. What size operator do you think can optimally compete in the American trucking industry today?

Mr. HOFFA. I understand you are from Washington. If you take Pacific Inter-Mountain Express, Consolidated Freightways, and you compare them to any one of your small carriers, such as IML, you will find they both make about the same amount of profit per unit per year.

So it isn't a question of the cost factor, it costs 55 cents a mile to run a tractor and a trailer. Whether you have one truck or a hundred trucks, that 55-cent figure isn't going to vary.

Mr. ADAMS. Do you believe that an owner-operator can start with an individual truck and go into the trucking business today and compete?

Mr. HOFFA. Well, I will tell you they are doing it every day in the week with the aid of Federal Government funds.

Mr. ADAMS. The next question I have is, Will it be more or less difficult, depending upon what requirements we apply to these individuals?

Mr. HOFFA. No, it will not. If everybody has to comply with the same rules, the tariff rate will be the same and they would all have the same opportunity, except the fact that convenience and necessity since 1935 governs the issue of permits. That is the only difference.

Mr. ADAMS. If you have a variable situation, you have the exempt carriers, your one-trip carrier, and a whole series of allowances where people can go in without having to establish a line. You also have the grandfather which has been traded back and forth.

What I am asking you is in terms of business that is being run in trucking, are we going to, and should we so regulate as we have with the railroads—I am not saying maybe we shouldn't—the railroads and airplanes, where basically we get down to a very small number of large corporations that can operate on a particular business basis with all of these items, depreciate them out, run them through, or are we going to continue the trucking industry which has a considerable amount of walk-in trade?

Mr. HOFFA. You are going to go into a large-scale business investment in the trucking industry for two reasons, and neither one has to do with the cost of equipment. One is financing. Unless you have permits and unless you have terminals you get no financing from any lending institution unless you pay exorbitant factor rates. That is basically No. 1.

No. 2, you have to run a piece of equipment 2,200 miles a week to be able to pay for that equipment at today's market price of interest



and capital investment. You have to have a 60 to 40 ratio of load capacity to be able to operate whether you are a big operator or a small operator.

Those three factors alone are going to make big, heavy concentration of trucklines with great numbers of units and terminals as against the individual operator.

Mr. ADAMS. Do you think that the safety regulations have an economic effect on the trucking industry in terms of size?

Mr. HOFFA. None whatsoever. What is the difference whether I own 100 trucks or 1? If each one of the individual trucks is driven by an individual driver I can kill just as many people singularly or by multiples.

What is the difference?

Mr. ADAMS. That is all.

Thank you, Mr. Chairman.

Mr. MACKAY. Mr. Chairman, I would like to say I hope we can accept the invitation to make this inspection sometime with Mr. Hoffa. I think we can learn a lot from such a field trip.

Mr. HOFFA. I would say this, if I may, sir, that the ICC has assigned two inspectors for next week at the request of Senator Magnuson to make a road check and we are hoping some of the Senators who listened to the testimony will be there, and we hope likewise somebody from this committee will be there.

The CHAIRMAN. If this is possible, all right, we will continue our hearings next week, morning and evening. We can't do both. I will say that we will accept your invitation to look at these movies because I think it would be very helpful to the committee. I am going to request that the members of the committee view them in executive session so we know before this bill is marked up what you have referred to.

We want to get every shred of evidence that we can before we mark up the bill. It might be possible that individual members of this committee might be able to accept your invitation, but we have men coming from all over this land for next week and we couldn't adjourn the hearings. Maybe we can do this at a future date, if it is possible.

Mr. HOFFA. I thought if we could get at least one person to go with at least one or more from the Senate side, along with the Interstate Commerce Commission, there would be two things: One, you would know what the ICC investigator actually investigates when he stops a truck.

No. 2, you would learn the ICC investigator's knowledge of the trucking industry, what does he do. If you had those two alone, you would know why you need regulations.

The CHAIRMAN. We will certainly see if some of the committee members would like to go. Mr. Friedel said he wanted to be there and Mr. Mackay would like to be there also. Perhaps they can report back to this committee. But we must continue the hearings. This is the most important bill that will come before this Congress this session and maybe for many Congresses.

I want to continue the hearings. We have these men scheduled from all over America coming in. Again, I want to thank you, Mr. Hoffa, for coming and giving us the benefit of your views.

As several members of the committee have said, your views have been concise, they have been constructive, and they certainly offer suggestions for the committee to work on in executive session.

In the light of the public interest which has been given there remains little shadow in which to pass the buck any longer. We are going to have to, in this Congress, accept this responsibility, the manufacturers will have to accept their responsibility, the drivers are, the dealers, and others.

I have every confidence in the 33 members of this committee that when we get through we will come up with something that we hope will be, and I am sure will be, good for this land.

Mr. HOFFA. May I insert a letter into the record from the National Safety Council, signed by Raymond Prince, concerning the jackknife equipment and what his views on it are?

The CHAIRMAN. Yes, you may.

(The letter referred to follows:)

NATIONAL SAFETY COUNCIL,  
Chicago, Ill., September 28, 1965.

Mr. JAMES MARSHALL,  
Care of Stephen Colhoun Co., Inc.,  
New York, N.Y.

DEAR MR. MARSHALL: Confirming our telephone conversation of this date, I again wish to reiterate the urgent need for a perfected anti-jackknife device for the trucking industries.

Several commercially available devices have been tested in recent years on ice and snow surfaces by the Council's Committee on Winter Driving Hazards, and although some have shown decided advantages, they still do not perform satisfactorily under all conditions.

Based on reports from twenty-three state traffic authorities, 10.9% of 2,350,000 registered trucks were involved in accidents during the year 1964. Of this total, 9,400 trucks were involved in fatal accidents during the same period. This figure represents all classification of trucks. Unfortunately, figures are not available on the number of jackknife accidents. Member companies report that the number of jackknife accidents are increasing, particularly since the trend is for bigger tractor-trailer combination vehicles.

As information only, I am enclosing a Council publication entitled "Keep Rolling With Safety In Winter Weather" that shows results of tests conducted on tractor-trailer units with different brake applications resulting in jackknifing. This is shown beginning on page 6. Also attached is a report written by a Mr. E. J. Fuerst that makes a general statement on the large number of jackknifing accidents.

Again, it is my sincere personal belief that a good performing anti-jackknifing device would benefit the industry and help eliminate many accidents.

Very truly yours,

RAYMOND PRINCE,  
Secretary, Committee on Winter Driving Hazards.

The CHAIRMAN. The committee will recess until 2 o'clock this afternoon.

(Whereupon, at 12:22 p.m., the committee recessed, to reconvene at 2 p.m. the same day.)

#### AFTER RECESS

(The committee reconvened at 2 p.m., Hon. Harley O. Staggers (chairman) presiding.)

The CHAIRMAN. The committee will please be in order.

Our first witness this afternoon will be Mr. Joseph Kelner, president of the American Trial Lawyers Association.



STATEMENT OF JOSEPH KELNER, PRESIDENT, AMERICAN TRIAL  
LAWYERS ASSOCIATION

The CHAIRMAN. Mr. Kelner, you may proceed with your testimony. If you care to insert your testimony in the record and summarize it, that will be fine. But if you cannot do that, you may proceed as you wish.

Mr. KELNER. Thank you very much.

The American Trial Lawyers Association is indeed appreciative of this kind invitation for us to present our views based on the experience of approximately 25,000 lawyer members in all 50 States of the United States.

We are the second largest bar association in the world. For many years we have, we think, served the public interest in consumer protection regarding products all kinds, and the institution of safety reforms in various avenues of our modern-day living.

The American Trial Lawyers Association was a prime factor in the protection of safety and welfare of the traveling public in our spotlighting of the inequities of the Warsaw Convention, for example, which is about to be denounced by the American Government to protect our citizens with regard to traveling rights.

The American Trial Lawyers Association has played an active role in urging reforms to provide for greater safety of American citizens who travel on board our seagoing ships.

The American Trial Lawyers Association has played an active role in cooperation with the Food and Drug Administration, the Accident Prevention Bureau and other governmental agencies to provide for greater safety and consumer protection for American citizens.

We are, we think, playing a vital role in this congressional investigation before this committee. I had the honor of testifying 3 or 4 weeks ago before the Senate Commerce Committee on the same general subject.

The American Trial Lawyers Association has played an active role in educating our people in the problems of highway safety and the means of accident prevention.

We are unique in our proximity to the human tragedies which occur daily on our highways, since, as trial lawyers, we investigate, prepare and try lawsuits arising from highway accidents in all of the courts of our land. We are distinguished oftentimes with experts working only with remote portions of the problem.

The statistics pertaining to deaths and injuries on our highways have reached such a magnitude that the human mind cannot comprehend the enormity. Were one to stretch the 50,000 persons killed annually on our highways head to toe, the bodies would form a line 50 miles long each year. Were one to walk at an average speed of 3 miles per hour to view these bodies of persons killed annually, it would require more than 16 hours to walk from one end of the grisly line to the other. The appalling line of crippled victims of auto accidents would require weeks to view the human wreckage.

Were one to stretch these bodies from Washington to Baltimore, you would still have some left over in the 50-mile line. We say that line can be cut to 25 miles. I know I am putting it in a pictorial fashion when we propose this.

There is a moral responsibility not to have this cure delayed. I would like to get there to the specifics.

For years, our publications have voiced our concern over the apathy of all segments of the American public and the Federal Government to develop a plan to master this ghastly problem. To this date, it is an undeniable fact that the Federal Government has no integrated plan and has accomplished little in coping with highway slaughter.

We are hopeful out of this committee's deliberations and the Senate deliberations an integrated plan can come.

On Law Day, May 1, 1965, to commemorate Law Day, an annual celebration of the legal profession, the American Trial Lawyers Association determined to focus attention on this problem.

We conducted in Washington, D.C., a public forum to examine all facets of the problem. Government officials there readily admitted that the Government has no plan to deal with the growing highway slaughter.

Government agency officials readily admitted that oftentimes this hodgepodge of different Government agencies were working at close purposes, with conflicting views, with conflicting programs, and with programs that were dovetailing each other and duplicating each other.

Fortified with these admissions, we instituted a nationwide program under the title "Stop Murder by Motor." We deliberately selected this somewhat shocking title because we felt it is high time to awaken public opinion to the best of our ability.

So, the "white paper" which we prepared and presented to the American public, and which we have sent to Congress, entitled "Stop Murder by Motor" and which is available free of charge at our home office, 6 Beacon Street, Boston, Mass., was circularized to all publicity media, government agencies, and various private agencies too numerous to mention.

Suffice it to say that we quickly ran out of the first 100,000 copies, and for a bar association we have literally broken our budget to order vast numbers of replacements to keep pace with the demand.

I hope I am not transgressing too much to say that over 600 newspapers have seized on this. We have literally tapped public opinion. We think we know the grassroots sentiment regarding the legislation that is now before this committee.

Here is a syndicated column at random sent to me yesterday, devoting an entire column to this little booklet and urging that all readers interested in saving their own lives and limbs send for a copy of our little booklet. Well, so much for that.

We have emphasized the fact that the problem has many facets. It includes the driver; it includes the automobile; it includes the highway and, often forgotten, it includes the pedestrian who has much to learn and much to be taught. We believe that as a major factor in marshaling public opinion in all 50 States to the present alltime high of public interest on this ghastly problem, this committee now is possessed uniquely, and for the first time, of a mandate to solve this problem, with full and complete support.

We have seven columns of clippings and letters from the largest corporation executives in America, at our home office, seven volumes of letters, thousands of letters, which are a literal avalanche of pleas



and demands and requests that something be done, that a program be adopted with teeth to implement what must be done in order to solve this problem.

The problem, I think, has now evolved not into a question of should there be solutions, but how the solutions can be obtained and whether they shall be on a delayed basis, a leisurely basis, a discretionary basis by a Secretary of Commerce; whether it shall be with various segments of our State and Federal Governments participation, or shall there be a strong, centralized authority which can make a cohesive, integrated approach to tackle the entire problem.

May I passionately refer to what Congressman Mackay said in one of his questions. I think it was implicit in his remark. He asked Mr. Hoffa, "Do you feel that this should be done through a centralized agency?"

In our little booklet, of which we are very proud, we have asked for a central agency of the Federal Government to tackle problems relating to licensing, to require Federal licensing standards, because these drivers are in interstate commerce and travel; to have a strong Federal program of regulation of automobile design; a strong cohesive Federal program with regard to highway design, and all facets and features of the entire problem. I would like to get into the matter of auto design because I know that is one of the principal concerns before this committee today.

Upon the basis of thousands of communications which we have received from all segments of American society, and from all publicity media, the grassroots of America, if you please, we affirm to this committee that improvements in auto design must be mandated into new automobiles at the earliest possible date. We think, with careful deliberation, that one-half of all collision fatalities, and I am excluding the pedestrian accidents so far, we think one-half of them could be eliminated once this program is implemented and gets into effect.

We recognize there will be a timelag because even though new automobiles have safety features mandated, you still have some 90 million automobiles on the highway which will be usable for year after year, and, of course, there may come a time when the Congress may say the time has come to halt the use of cars beyond a certain vintage or certain age.

But, sooner or later, this program will be in full swing and the matter of timing is of the greatest urgency. In the legal expression, time is of the essence. Upon the basis of our experience as trial lawyers, we have repeatedly supported the enactment of legislation to protect drivers and passengers in automobiles from the fatal or crippling consequences of collisions which inevitably will occur.

It is a classic event that is occurring now, this so-called dispute as to causation and attributing causation to driver or automobile. I would like to say there is no question that the driver has a very, very great deal to answer for. I think it was Congressman Cunningham who raised the question. Of course, he does. If the car is in the garage, there will be no accident, unless the driver gets to the wheel; or if it is on the showroom floor. But, once that driver is in that automobile, with 90 million cars on our highways, and projecting it 10 years hence maybe 130 or 140 million cars, with the best of intentions, with all of

the safety lectures, precautions and coaxings by the National Safety Council which periodically says on the next Memorial Day or Fourth of July weekend 550 or 700 Americans will be killed, with the best of intentions, you and I who drive our automobiles rationally and carefully and presumably never with any liquor in us may be struck with the fellow who has done it, or by the driver whose faculties have slowed up and whose eyesight has failed and he has not been examined with regard to his eyesight for 10 or 20 years.

I was licensed in New York over 30 years ago and they never looked at me again. That is something that the Federal Government has to get into because the States will never master that problem. That is a separate subject.

I would like to refer to what I say is the present issue, as to not whether the program should go into effect, whether legislation should be adopted, but the issue is when and how. I would like to say that there is a tendency, I am sorry to say, in the great automobile industry, which during World War II performed miracles for the American public in our fight for life, in the mastery of all sorts, engineering and technological problems, when the chips were down and we needed it, they performed beautifully, but I regret to say, because I was a stanch admirer of the industry, that they have dragged their feet for 30 years. They have opposed one measure after another which would have been calculated to improve safety.

Some 5 years ago I was president of the New York State Trial Lawyers Association. I attended a hearing of Senator Edward Spino, about whom you may have heard, one of the pioneers in this field of accident prevention, and six manufacturers' representatives from the auto industry came in from Detroit to oppose vehemently the proposals to mandate seat belts into automobiles. Today we are witnessing the auto industry literally imploring people to use the seat belts. At that time, the multiplication was some 6 or 7 million cars produced each year, times \$3 or \$4 per car in wholesale prices. They opposed this vigorously. I saw that with my own eyes and it is a matter of record before those hearings.

We saw that the emphatic demands by the auto industry that more and more research is required before design changes are incorporated into new automobiles requires careful and critical analysis by this committee, because any delay, and a sophisticated understanding by this committee is essential if it is to do its job to fulfill its responsibilities as quickly as possible to the American public—we say that any unnecessary delay in implementing this program is, in effect, sacrificing the potential savings in thousands and thousands of lives of Americans yearly.

What are these delaying tactics? I would hate to feel that it is merely materialistic saving of money, but here are the various proposals which I just listed at random. I call it the waiting game. More research and more research, and research can be endless.

Second, Mr. Ford said just 10 days ago, there would be a very severe impact on our economy. I submit, in all fairness to Mr. Ford, who is one of our finest citizens, that is an arrogant and thoughtless statement because never in American history has any factor of economy been given priority over the lives and safety of our people.



If a lowly seaman, the lowest seaman in rank on a ship, is swept overboard, the American Government will spend literally millions of dollars sending out hundreds of ships to save that life. Never has anyone had the audacity to come before a congressional committee, to my memory, and say, let us take our time, let us balance, as I understand was said yesterday in Mr. Bugas' statement, let us balance economy against the necessity.

That is talking about money, and I submit that on that score if the industry were to skip 1 year in model changeovers and the hundreds of millions of dollars spent on new body design for dies, and I don't have to be an expert as they know what that costs, that would be more than sufficient to give the leverage and propulsion to this program so that it could literally take off.

I say that economics, if they are going to be considered, we must consider the economic impact on America and its economy by the fact that over \$8 to \$10 million is lost every year as a result of these accidents.

Another delaying tactic is the proposal, I submit, to permit or bring in States and to get consensus opinions. That is a very vague statement. But if you are going to get a consensus of 50 States before you make a move, I submit that you will wait from now until the year 1980 before you are going to get either a unanimity or a consensus. I say that is a dissipation of the power of Congress to protect the public. A strong hand must seize the initiative to make this a Federal regulation program.

I say that this preoccupation by the automobile industry with obtaining participation of various engineering societies, the various States, is a complete abdication of the principle of centralized control which can get the job done. I don't mean only for auto design. I mean a comprehensive view for the entire problem. I submit that this committee should examine with very critical and jaundiced eye any proposal which will delay the immediate mandating of known safety improvements. They are not hard to come by. The procedures can be set up very readily.

For example, hearings such as are being conducted today could be conducted either under the proposed Department of Highway Transportation, if a new secretary is created by law, or by whatever Government agency is created to centralize control, and certainly the auto industry should be heard, and certainly all State agencies should be heard. The trial lawyers, the doctors, everyone who can be invited to attend hearings should be heard. Then out of that should come a promulgation of known safety improvements and standards based upon the best "substantial evidence." That is the concept, because there will never be perfection, and I do not doubt that some mistake will be made. It can be corrected, as all human events can be subject to error. But it should not be delayed.

One thing that I am concerned about as a lawyer, because we are dealing with a program which involves the humanities, is the proposal by Mr. Bugas on behalf of the whole industry to provide court review. Of course, there must be some review against some arbitrary action by any administrative agency. But the manner in which that proposal is met by this committee is going to be determining the strength or weakness of this program.

As a lawyer, I know if you have a criminal case you can get court review after court review and you can stall, as the *Chessman* case indicates, for 14 years the eventual review by a court. This is not a matter that should be subjected to endless court litigation. Unfortunately, that is a possibility unless the bill is so written that the decision of Congress and the procedures established will be based upon substantial evidence, based upon hearings and based upon the best expert advice you can attain. There are experts who can furnish this committee or any congressional committee, or any governmental agency with substantial, reliable, expert evidence. So we do not have a danger of court tieups to implement this very vital problem.

I would like to just refer for a few moments to some of the known effects of collisions based upon our knowledge as trial lawyers. Unless anyone think and say that we are not experts, we are only too expert because we are exposed to the human tragedies that results, and we actually visit the scenes of accidents and examine the wreckage. I am dividing these comments into an analysis of what happens with front end impacts, rear end impacts, and side impacts on automobiles. Those are the most common. Of course, there are various others. One might talk about turning over of cars. I don't have the time. I know the committee can't devote that much time from the hearing.

But just talking about first front-end impacts, our experience as trial lawyers investigating and preparing and trying cases proves that severe front impacts causes to our clients, from our personal observation (1) the steering post and motor are driven backward without ample foresight or without any foresight to deflect them from projecting into the riding compartment. Picture, if you will, the possibility that a riding compartment could be developed so that on a severe impact the passengers were rigidly seated and protected by shoulder harnesses and seat belts and nothing could penetrate because of advanced design and proper planning. What happens is that the steering post stabs my client in the chest and he is killed by a severe impact against the sternum or breast bone. His ribs are smashed. The motor often is driven into the riding compartment, striking either the driver or the passenger sitting next to him in what we as trial lawyers call the death seat, the right front seat in an automobile.

Two, the steering wheel is driven into the chest or head of the driver with frightful consequences. Our studies indicate that if the automobile industry were to install an energy-absorbing front bumper it would minimize the effect of the front end impact; that a fire wall of steel or other design feature should be installed in the automobiles to deflect the motor downward to prevent it from being hurled back into the riding compartment.

These engineering advance are known. They are nothing revolutionary. They would not take 6 months to put into operation.

Three, provide a collapsible steering wheel, which General Motors has already announced to the public, to prevent it from impaling drivers in front-end collisions.

And the so-called safety glass of the windshield and windows is simply not safe because it shatters readily.

A young man, in a case I am handling now, 2 months ago was blinded, 22 years of age. There is something to cry about when you see these things.



Frequently, the glass disfigures, deforms, blinds or kills the occupants of automobiles. The gage of the safety glass is too thin. Passengers who are hurled from inside against the glass windshield should be protected by designed installations which would make the glass pop out rather than being rigid. This oftentimes causes fractured skulls or horrible disfigurements.

On rear-end collisions, may I say, and I assume the committee may have received our political booklet entitled "Stop Murder by Motor," we have pointed out that there are more rear-end collisions than any other kind of collision on the highway, bar none. It comes from tailgating, which is driver fault. But because we know these things are going to happen, it is our experience that there are more of this type of collision and the automobile must be built to protect against it. The most common type of injuries which result from rear-end collisions are the so-called whiplash injuries, which may be minor or so severe as to cause permanent paralysis. For years we have called attention to the necessity of installation of head rests in automobiles, which would save literally hundreds of millions of dollars in damage claims. It is a very inexpensive device. We say, somewhat apologetically to one of my friends in the insurance business, a great lawyer, Robert Gilmore, that if they were to urge, as we do, the installation of head rests in automobiles, the lawyers of America would be put out of business so far as handling these cases are concerned. We hope they would do it.

We urge and shout that they should do it. In a rear-end collision we know that the human head, weighing from eight to 11 pounds, depending upon the volume of brains that the Good Lord has endowed us with, goes first back, beyond the normal anatomical limits, and then forward with damage to the neck cervical spine structures. The head rest would eliminate that. Strangely, nobody has shouted loudly for it enough, and we have been doing it for quite a long time. You don't need research for that. That is something that ought to be mandated by a Government agency immediately.

In rear end collisions we say an energy absorbing rear bumper would minimize the shock effect of these rear impacts. It is common for these passengers in the rear seat to be flung forward against seats which buckle and swing forward. The seats are not rigidly mounted to the floorboard of the car. Often the passenger in the front seat is crushed against the dashboard or glass windshield. Standards are required.

A most common source of injury in rear end collisions is from the second collision, meaning the impact of the passenger with the interior portion of the car. It will cause death or injury because of the various protrusions of knobs, glove compartment posts, rear view mirror, stick shifts, door handles and parking brakes. It requires little engineering ingenuity and no research to recess or remove these protruding objects and to replace them with soft, energy absorbing surfaces designed to prevent foreseeable injuries.

In rear end collisions, the person occupying the death seat, the front seat next to the driver, is hurled forward against the dashboard and windshield with predictable dire consequences, blinding, disfigurement, fractured skulls. These we see in the actual cases. The so-called

padded dashboard, which up to now has been sold as an optional extra, simply is not padded nor soft enough to absorb the force of predictable impact with the person in the death seat.

Often the padded dashboard is relatively sharp and hard rather than soft and rounded. We say this concept of charging extra for any safety feature is unworthy of the great automobile industry because its own image and its own desire to do good for the American people should never impel them to charge a single cent for any known safety extra. It should be put in automatically the minute they develop it and can put it in. It should be part of the price of the car. In volume production, it would be far cheaper than to charge separately to someone who wants to save his life by paying extra. The concept of charging extra for safety features should be unknown to the entire industry as a concept. It is immoral.

On side impacts, the common injuries from side impacts are easily predictable upon the basis of our experience in seeing these cases. Upon side impact, the doors are flung open, because of faulty design of door latches, occupants are hurled out of the cars with fatalities being gruesome.

Second, the side, and this is so important, the side of the modern automobile is designed without any protection whatsoever to the occupants. Think of that. With the thousands and thousands of intersection collisions in this country every week, there is no protection.

Just 2 weeks ago, in a case that came into my office, a 25-mile-an-hour impact, with the front of a Pontiac, striking the side of a Chevrolet, the driver of the Chevrolet, who came out of the side street—undoubtedly he was negligent—he was killed instantly. It was not a high-speed collision. But the side of the car is built like an eggshell. There is the thin metal of the door. The structure of the door is completely inadequate and was never intended to prevent injury from side impact. We say that automobiles with X-frame types of chassis should be outlawed. They present no physical obstacle to prevent penetration into the riding compartment by the automobile which strikes it at the side.

Based upon our experience, mandatory changes in design of automobiles would be essential to provide side impact protection. At present, the modern automobile, we say, has less protection against side impact than the "dodge 'em" car that you and I used to ride in amusement parks.

In the "dodge 'em" car, where we used to pay a nickel, the "dodge 'em" car has all around shock absorbing bumpers. Our experience impels the recommendation that the modern automobile must be redesigned with a rigid steel chassis having a steel frame or girder completely surrounding the underriding compartment of automobiles. Thus, we are wont to visualize, and this, of course, is a very facetious analogy that I am presenting, we are wont to visualize occupants in a steel bathtub, with steel walls surrounding all occupants of the bathtub, the obviously saving propensities for automobiles would be self-evident. Shock absorbing side bumpers could be installed and there would never be a fatality from a side impact. The side bumpers would be at standard bumper height and all automobiles would be required to have the same height of bumpers, front, rear, and side, so that known



predictable impacts would give at least some lifesaving chances to the occupants of the automobiles.

The dramatic contrast between such a design and the present, complete, absence of any protection whatsoever is apparent. Our experience proves that many persons killed in side impact crashes would be saved by foresight and imagination and the improvements of design to protect against the inevitable side impact collisions which result only too frequently by the thousands every week.

On miscellaneous recommendations, we have advocated the mandating of cornering lights to illuminate the area into which an automobile is turning; dual disk brakes which are virtually unaffected by water. Our experience has shown that on raining days, the standard types of brakes frequently will fail because water penetrates into the brake mechanism, making them useless.

Headlights and taillights visible from the side as well as the front and rear of the automobile. We advocate, for example, that the inner lid of the trunk should be painted with a luminescent painting so that where there is a car stalled on the highway, the oncoming cars would see the open lid of the trunk of the stalled automobile and would be warned away.

Last, with regard to prototype safety cars, we think this is the most exciting development of forward thinking that has come along in decades.

The project that has been launched in New York I am very familiar with. There are fine men working on it, fine engineers, who are not beholden to any particular manufacturer. Their designs are so forward in concepts that I would urge that the financing problems that they may have, that State or any State, including the State of Iowa—Attorney General Scalise will be speaking later today on what they are doing—any State that will qualify for Federal aid certainly should receive support under this legislation.

It is very important for the committee to understand that the prototype car could be used for experiments and for the establishment of Federal standards against which consumers could be protected, against which law enforcement agencies and the Federal Government and the manufacturers could measure the performance abilities and the safety, cash worthiness of their automobiles when they are produced. The prototype standards would not be set because this whole concept should be for a flexible, continuous improvement as new designs and changes, and modifications, are developed by a continuing program with regard to auto design.

The evolution of the ultimate safety automobile, I suppose, we might project ahead for 10, 20, or 30 years, would be the reliance on electronic computers, radar devices, and what not. We are not there yet, but the time is now for this committee to assert vigorously for the protection of life and limb of the American people, this type of legislation. This committee should reject any proposals by the auto industry that it should police itself or that it should have an ultimate decisional power as distinguished from a consultative power in the establishment of standards. Certainly they must be consulted and yet the ultimate powers must be made and conferred upon the Government regulating agency.

Since the modern automobile provides the largest transportation system ever known to mankind, isn't it strange that Federal regulation so far has exempted it from any kind of control, whereas airplanes, ships, interstate buses and trains all are under Government regulation and all of them combined carry only a small fraction of the human cargo that the automobile does.

We say, in conclusion, that this committee should enter into this battle to save lives and to reject all proposals for procrastination or delay, needless research. It should be sophisticated with regard to proposals for a complicated court review procedures which would emasculate this program. And it certainly should reject any arguments which would balance or equate human safety in the saving of human lives for economic considerations. That is something that should not only be secondary but far beyond secondary if the Congress is to fulfill its historic tradition of protecting the American public.

Thank you.

The CHAIRMAN. Thank you, Mr. Kelner. The committee very much appreciates your statement.

Mr. Moss?

Mr. Moss. Mr. Kelner, I want to express my appreciation for a very thoughtful and constructive statement, one I am confident will be most helpful to the members of this committee.

I concur most emphatically in your observation that we should not adopt any legislation which leads to endless procrastination done in the name of research.

I can think of so many things as I look at my own automobile that are obvious to a person who makes no pretense of being an engineer. Obviously they are not safe. I am also reminded of the fact that I have gone back about a half dozen times to dealers to try to get windshield wipers that will take water off a windshield in the middle of a rainstorm.

To this moment, 15 months later, whenever it rains I have difficulty seeing out of my windshield. The engineering expertise of the American automobile industry should be able to solve this monumental problem.

I recall no instance in many years but what I usually average one new car each year—because I have to keep two—where I have been faced with balanced wheels. I have always had to go out after I bought the car and had the wheels balanced. That should not be necessary. It should be delivered to me with the wheels and tires balanced.

In fact, perhaps there should be a little better job in balancing tires. I was interested recently in a television ad boasting of making a round tire. I thought all tires were round: they should be. But I suggest that if you try to cast an eye on some of the wheels of cars coming toward you or traveling alongside of you, they way they wobble you would wonder if they are balanced, either the wheel or the tire.

There are many obvious things that could be done if we put our minds to it, and which should be done.

Referring to your experience, I had occasion a couple of years ago to stop at a glass firm in my district to have a window put into the



car. The owner there complained to me of the tempered glass in the side and rear windows of our automobiles. He told me that in his judgment it represented a serious safety problem because a person trapped in the car could not break the glass to get out.

Have you any experience in that regard?

Mr. KELNER. Congressman Moss, not particularly with regard to that. But there is a difference in the shatterproof or so-called shatterproof capabilities of side window glass and the front windshield glass.

There is no question that the front windshield glass has better capabilities for the shatterproof qualities. But the side glass does not have the same capabilities. I wouldn't want to enter into a complicated expert lecture on the subject, but those in the glass industry with whom I have ever spoken have said that for just a slightly bit more money being expended on the side and rear glass, a much better safety job can be done. This would not be the right time to go into the details of it. I don't have particular experience on the question that you are raising, however, on the ability of the passenger to break out.

Mr. Moss. Do you have any experience on a problem I had just about 2 years ago: I was driving over in Alexandria, Va. I stopped at a stoplight and was struck in the rear. The young lady who struck me had reached for her brake and hit the accelerator. So I got the full impact, along with the whiplash. Is that a common occurrence?

Mr. KELNER. This happens, I would say, countless times daily all over the United States. I would say the average lawyer who does handle negligence cases receives possibly three times as many rear end collision cases as he does any other kind of accident case. Not all of them are serious, but some of them are very serious.

The design problem that you raise is the placing of the accelerator pedal in close proximity to the brake pedal. That is an obvious thing that many of us have been aware of for a long time. On a wet day your foot can readily slip off the brake pedal, slide on the rubber, especially if it is worn down a little after usage, and slide back on the accelerator pedal.

It is an obvious design improvement that should be considered by any Government agency setting design standards.

Mr. Moss. So for many of these things we don't have to have extended and costly research but just a little intelligent analysis of the problem.

Mr. KELNER. Exactly. Mr. Moss, it is so important that this committee realize that of these 20 or 25 known safety improvements by general consensus which exists everywhere, and probably the automobile industry engineers would readily admit after one or two hearings before this committee or a similar committee, these can be put into effect in the 1967 automobiles, and there would be no great tragedy if they delayed the model changeover.

I know that regulation is a very unsavory thing to any industry, but we are talking now in terms of lives. These known safety features this committee can take judicial notice of, if I can borrow a phrase from the legal profession. You can take judicial notice of the fact that absorbent bumpers, or a deflecting design to make the motor go down instead of into the compartment, better safety glass and better glass on the sides.

At random, I have, just a couple of months ago, flipped the pages of a national magazine, and I saw one automobile titled the "Fury" and another one has a tiger denoting performance with the likeness of a tiger. It has a beautiful woman sitting on the hood with her legs crossed. It takes little imagination to know that the sex symbol can sell hundreds of millions of automobiles.

The next ad talked about the ability of a car to go from nothing to 60 miles per hour in something like 7 seconds, roughly.

I was thinking to myself, "What are these people thinking of?"

Mr. MOSS. There is very fine driver education in advertising for a gasoline, to get yourself a tiger in the tank, to get yourself a Fury that will accelerate to the heights in nothing flat, and this is the competition that the young men and women have as we attempt in the high schools to teach them safety and to be competent, responsible drivers.

Mr. KELNER. Lest anyone think that any one manufacturer monopolizes the guilt on that score, one manufacturer has the Wildcats, one has the Fury, and the other has the Mustang. So all three of the major manufacturers all have the same approach.

Mr. MOSS. And they all have a tiger?

Mr. KELNER. Well, they all have a tiger, yes.

Mr. MOSS. I thank you.

The CHAIRMAN. Mr. Younger?

Mr. YOUNGER. Thank you, Mr. Chairman.

You have made quite a few engineering suggestions here. Have you ever made these suggestions to the industry?

Mr. KELNER. Not directly to the industry. What we have done is in our various magazines that we publish oftentimes the major manufacturers who maintain a library in Detroit will send for our publications.

We assume that there is a direct interest in many of our specific recommendations. Over the years they have been aware of our writings and our suggestions.

Mr. YOUNGER. We had hearings on safety a couple of years ago when we were considering seat belts. Do I recall that you appeared at that time?

Mr. KELNER. Several years ago, sir?

Mr. YOUNGER. About 2 years ago.

Mr. KELNER. No, I did not appear. I did appear at the corresponding hearings in New York as long as 5 years ago, 1961. As you probably know, I think New York was one of the first States to mandate seat belts into at least the front seats of automobiles. But in our publication we did disseminate our views very widely.

Mr. YOUNGER. I take it you advocate the issuance of Federal licenses.

Mr. KELNER. Yes. We advocate that every driver should be presumed, like many products, to be sooner or later in interstate travel. We feel that there is an ample legal justification for Congress assuming the jurisdiction over licensing procedures and the setting of standards for licensing of drivers, recognizing that the national economy, forgetting the moral and humane considerations, the national economy has a very great stake in elimination or a sharp reduction in the bil-



lions of dollars of losses which are involved in a fantastic number of automobile collisions in this country.

Mr. YOUNGER. I realize that. That is partly the purpose of the hearings. Would you advocate also that the Federal Government license the lawyers all over the country instead of the States?

Mr. KELNER. If we were to get into that, of course, they would get into licensing of teachers and all other trades and professions. I wouldn't think there would be a real necessity for it. There hasn't been a necessity demonstrated for that, but there has been for licensing of drivers who are in constant interstate travel, along with the automobiles.

Mr. YOUNGER. There is also a desire to try and retain some semblance of control in the States rather than concentrating everything in Washington.

Mr. KELNER. May I answer that, Mr. Younger, by pointing out that in certain States, and I think we ought to be blunt about it, political considerations get in the way of effective licensing, driver licensing, procedures.

There are certain States where you have a large percentage of over-age citizens and it would be politically dangerous, I think, for any State official to advocate adequate controls in regard to such examples. There are farming communities where I don't doubt that exception should be made to permit 14-year-olds to drive automobiles, which is the case in some States.

But you could not get a law through certain States with regard to such a proposal. Say to establish a minimum age, if that were desirable, and I am not saying it is. There are various other local considerations which make a local-State attack on a problem almost impossible.

We think that only Federal regulation can really get at the drastic program necessary to solve the problem.

Mr. YOUNGER. You don't mean to tell us that there is no possible political influence on the Federal level, do you?

Mr. KELNER. I would like to feel, sir, and I do, that on the Federal level the politics in this field, at least, would be beyond the pale of actually being a factor. I don't think it is on the Federal level.

Mr. YOUNGER. Did you hear the testimony this morning by Mr. Hoffa?

Mr. KELNER. I did, sir.

Mr. YOUNGER. You heard what he said about the ICC?

Mr. KELNER. I am glad you brought up the ICC, if I may bring up another point. Mr. Hoffa neglected to mention that driver fatigue of truckdrivers has been in so many of these accidents. In most States they are only permitted to drive a maximum of 10 hours in any 14-hour period. Some of these fellows are bleary-eyed and maybe they want to make double time or time and a half, and I don't know whether that is with or without the knowledge of the union, but they will get involved in fearful accidents, killing people. We will check and discover by careful investigation that the drivers have been on the highways as much as 18 out of 24 hours. They stop for a cup of coffee, but they are literally paralyzed sometimes at that wheel. There is little or no control.

I don't think the ICC is doing a job with regard to checking that problem out.

Mr. YOUNGER. Does that apply to regulated carriers?

Mr. KELNER. Yes; it does.

Mr. YOUNGER. I have one other short question. You apparently advocate that this be set up outside the administrative act.

Mr. KELNER. What should be set up?

Mr. YOUNGER. That the control or the power of the Secretary of Commerce would mean that he would not have to comply with the administrative act. This is the only proposal of that kind that has ever been made for regulation. All of the other regulatory bodies have to live up to the terms of the administrative act.

Yet you propose that they be eliminated from it.

Mr. KELNER. Mr. Younger, we advocate that a Central Government agency take a comprehensive control under law of the Congress, and I don't think it should be the Department of Commerce because they have too much to do and too many other programs which may present some conflict. We say a special Department of Transportation, or whatever name you will, should have a central, Federal control over all facets of this entire problem, including driver, licensing procedures, automobile inspections, truck inspections, automobile design, so you don't have 15 or 20 different agencies duplicating or conflicting with each other.

Mr. ROGERS of Texas (presiding). Mr. Macdonald, would you yield to me for a question?

Mr. MACDONALD. I am happy to yield to my distinguished chairman.

Mr. ROGERS of Texas. You brought up Mr. Hoffa's testimony about driving 10 hours. Is there any provision about what he can do before he starts driving?

Mr. KELNER. No. The law in most States merely sets a maximum number of hours in driving.

Mr. ROGERS of Texas. Suppose he has been up all night before he starts driving?

Mr. KELNER. Then, of course, you have a double hazard. But the law does not go into that. It should.

Mr. ROGERS of Texas. There ought to be some provision made about that?

Mr. KELNER. Yes.

Mr. ROGERS of Texas. I thank the gentleman.

Mr. MACDONALD. I thank the gentleman for raising that subject. I know the gentleman from Texas very well, and I think he would be the last to want to write into any bill some provisions that would turn this country into a police state. He has been very vigilant concerning the encroachment of Government.

Mr. ROGERS of Texas. All I meant was to see that the man gets the proper amount of sleep, if that requires a police state.

Mr. MACDONALD. To get back to more mundane and more realistic aspects of this bill that we are trying to protect the public with, I, for one, would like to congratulate you, both personally and your organization of the American Trial Lawyers Association, because you are one of the few people to come before a congressional committee and talk against your own economic interests.



I have never seen a breakdown of the number of cases that are tried in the courts, but I would think that negligence and trials of who was at fault in either a death suit or a damage suit comprises a large segment of most trial attorneys income.

Mr. KELNER. It is 80 percent, approximately, of the national case-load. It is 80 percent of all civil cases, as distinguished from criminal cases. It is 80 percent of all cases in the courts, including matrimonial, equity, and so on.

I would say, and I think safely so, that our some 25,000 trial lawyers certainly base a very, very high percentage of their livelihood on the time and efforts extended to helping represent those who are injured in the 80 percent of all cases in the court.

Mr. MACDONALD. I didn't know the figure was that high. I knew it was high. I double my compliments to you and your association for coming here to perform this public service. I would think that a trial attorney on both sides are closest to a neutral that can be obtained, more neutral than the police, and certainly more neutral than the people involved in the accidents, and, therefore, it seems to me that by your training the members of your association have a good perspective about this problem.

I couldn't concur more wholeheartedly in saying that it is a national problem and one that should be dealt with and dealt with immediately.

On page 5, you state it is a fact that the 1966 automobile is no safer than those produced in 1940. I don't see any footnote where you could buttress that as a fact. It is a statement and an interesting statement, but do you have proof that this is so?

Mr. KELNER. Our proof is based upon the fact that many of us have been in trial work for over 25 years. For example, I was admitted to the practice of law in 1937 so that it was 29 years ago and I am not the oldest by a long shot.

We say there are no dual brakes on the modern car, just as there weren't in 1940. We say that the sheet metal that was used in constructing cars in 1940 was even heavier than it is today.

We say that the cars have now been souped up on their speed so that the acceleration which is constantly touted in advertising is far faster than it was 25 years ago, when people of necessity had to drive slower because the cars didn't have this hopped-up ability, improved gasolines, and improved engineering for speed and so on. But there has not been any addition of one single significant safety feature in the 1966 automobile, outside of the so-called optional safety package of the padded dash, which is not a padded dash—just feel it and touch it and imagine yourself going against it at 20 and 30 miles per hour, and it will kill you—by your own memory and analysis, you can't point out any real safety features that the auto industry has voluntarily put into these cars.

Mr. MACDONALD. I am very interested in your saying this, because I know of your experience and the experience of the people of your association. It is my own feeling and I couldn't agree with you more.

I think that the automotive industry, itself, has been very derelict in its duties. As a matter of fact, you might be interested in this fact, that yesterday a gentleman was testifying in behalf of all the

automobile companies and when I asked him how much money was spent in the field of safety he gave a rather evasive answer about things that were connected with safety research, and he came out, as I recall it, at \$138 million was spent in this field.

Then I questioned him yesterday about what was spent in the changeover of a style in his company. He replied that this was a very highly secret figure and he didn't give it to me. He didn't quite refuse because I didn't press him that hard.

I had an unsolicited call today that there is a report filed with a Department of the U.S. Government that indicates that over \$500 million is concerned with a changeover in style. When you compare that figure of \$500 million compared to \$138 million, it just staggers me how derelict the automobile companies have been.

I would like to ask you this one question, because I see the chairman is winding up, I think, to gavel my 2½ minutes down.

As a trial attorney, do you have to take into consideration when you are either defending a case in court or presenting it the factors that have gone into that accident?

Mr. KELNER. Certainly.

Mr. MACDONALD. Would you say, on the basis of your great experience that high speed, excessive speed, usually is a large factor in fatalities on the highways?

Mr. KELNER. Undoubtedly, an automobile going 60 miles an hour and then a collision occurring will cause more injury than one going 10 or 20 miles per hour. But it is not the speed in itself that is the major factor, in my judgment. It is driver fault.

With a variety of cars it is under the heading of driver, or senility, poor eyesight, inattentiveness. Alcoholism is a tremendous factor. It is calculated that 55 percent of all fatalities occurring at night involve somebody drinking. Any time we get a case of an accident happening after 1 or 2 o'clock in the morning, the first factor you look for as a trial lawyer is who was doing the drinking.

The insurance lawyer will do the same. It is known that at that hour somebody has been somewhere they had drinks. And quite possibly rightly so.

Mr. MACDONALD. You mean legally so.

Mr. KELNER. Legally or rightly.

Mr. MACDONALD. Let me interrupt you because I don't have too much time.

Isn't it a fact that someone who has been drinking has a tendency to exceed the speed limit?

Mr. KELNER. He may do a variety of things including exceeding the speed limit, yes.

Mr. MACDONALD. Both ways?

Mr. KELNER. Yes. He will lose control. He will go to the wrong side of the road. He won't step on his brakes in due and timely fashion. He will tailgate. He will do almost anything in the book, Congressman, and particularly his reflexes will be slow.

You and I may take one or two drinks and we won't become intoxicated but our reflexes are slowed. Our normal reaction sometime is three-quarters of a second and it may go to a second and a half. That is the difference between getting hit or not.



Mr. MACDONALD. In conclusion, I would just like to follow up one thing that you raised with Congressman Moss, and which I raised yesterday with the automotive people: Is it your belief that the advertising done by the automotive companies leads the public to demand more and more horsepower and speed?

Mr. KELNER. I couldn't agree with you more. What they are doing is they are building up a demand for speed which is equated with sex or higher performance, with the Tiger, the Fury, the Mustang, and so on.

Mr. MACDONALD. Well, let's keep sex out of this.

Mr. ROGERS of Texas. The time of the gentleman has expired.

Mr. Cunningham?

Mr. CUNNINGHAM. I thank the chairman.

I appreciate Mr. Kelner's presence, but, unfortunately, in my opinion, he is falling in the same trap that other headline seekers have in blaming accidents upon the automobile which statistics do not prove.

I am not a lawyer, so I am not a member of the "club." Isn't it a fact that the American Trial Lawyers Association is not connected with the American Bar Association?

Mr. KELNER. Sir, the American bar is not a member of the American Trial Lawyers either. But many thousands of our 25,000 members are members of the American bar.

Mr. CUNNINGHAM. Isn't it a fact that you front for the big insurance companies and your sole purpose is to get those involved in traffic accidents off the hook?

Mr. KELNER. Sir, you couldn't be more wrong. As a matter of fact, they are almost our mortal enemies. We are primarily the plaintiffs' trial lawyers. We represent the victims of accidents and the insurance industry is our constant day-to-day opponent in the courts, resisting claims for money damages which we present for the victims.

Mr. CUNNINGHAM. You present kind things about the insurance industry. From my experience in this work, and from your complimentary remarks, I would guess that at least a majority of your members are the front men for the insurance people.

Mr. KELNER. On the contrary, sir, we have some 25,000 members. Only about 2,200 or less than 10 percent are consistently doing full-time work for the insurance companies. They are not even full members. They are called subscriber members. I would be happy to send you the statistics, sir.

Mr. CUNNINGHAM. In your statement you made mention of the fact that automobile manufacturers—or you indicated—impede your work. I would want to know, can you support this committee with any evidence that any automobile manufacturer has engaged in any effort to impede the work of the trial lawyers in traffic cases?

Mr. KELNER. Are you reading from my statement or somebody else's? I never made any such statement.

Mr. CUNNINGHAM. You inferred here, and I don't know what page it is on, but you inferred it. I will read it more carefully and supply it for the record.

Mr. KELNER. I would like to be confronted with the statements so I may answer it, sir. We have never said any auto manufacturer impedes our work at all. That must be somebody else's statement.

Mr. CUNNINGHAM. You also stated that the burden is on the automobile. Then I would presume, if you made that statement—

Mr. KELNER. We didn't make that statement, sir. That is somebody else's statement you are looking at, apparently.

Mr. CUNNINGHAM. Sir, I am only looking at your statement and my notes.

Mr. KELNER. Would you be good enough to tell me what page it is, sir?

Mr. CUNNINGHAM. I don't have that much time because I have some other things I want to talk about.

The gist of your statement is that it is the fault of the automobile manufacturers. Is that right?

Mr. KELNER. What we have said is that there—

Mr. CUNNINGHAM. I know what you said. Is that right or wrong?

Mr. KELNER. That is wrong. If you give me an opportunity I will tell you that there are four major—

Mr. CUNNINGHAM. The whole gist of your statement is that you want to—

Mr. MACDONALD. Mr. Chairman, I think that the witness ought to have the opportunity to answer the question that he is asked.

Mr. ROGERS of Texas. Let's have regular order.

Do you want to raise a point of order?

Mr. MACDONALD. I make a point of order, Mr. Chairman.

Mr. ROGERS of Texas. The gentleman will state it.

Mr. MACDONALD. I believe that he witness should not be forced to permit an interruption of an answer, and I think the procedures of this committee are such that once a member asks a witness a question, that the witness should be permitted to answer that question.

I hope we follow the regular order, Mr. Chairman.

Mr. ROGERS of Texas. I think the gentleman from Nebraska understands the rules. We will follow it.

Mr. CUNNINGHAM. That may or may not be the rule, but I don't want all my time used up by excessive response which has already been testified to.

Mr. KELNER. May I answer your observation, sir?

Mr. CUNNINGHAM. I would want to know what statistics do you have as to the number of fatalities caused by car design as compared to fatalities caused from other causes.

Mr. KELNER. Sir, the statistics are in our collective memories, in the brains of thousands of lawyers, based upon many years of experience. There are no such statistics in existence either in Government files, which has men dedicated to collecting statistics and the resources to collect them, but I can tell you that we have never said that the automobile alone is at fault.

We say it is one of the major segments. We say it is the fastest way to cut down on the seriousness of injuries or the number of deaths because once you anticipate that crashes will take place in a large number, every year, and design the automobile in anticipation of that inevitable event, that a car may likely be involved in a crash, you are thereby saving a fantastic number of lives and preventing or minimizing many, many injuries.

Mr. CUNNINGHAM. All I want to know is what figures you have that you can present to this committee of Congress that would indi-



cate that the design of the automobile, which most of your testimony is about, what figures you have that will prove that that is the major cause of an accident.

Mr. KELNER. My answer to your last question, Mr. Cunningham, was that neither we nor anyone, to our knowledge, has exact statistics. Neither our association nor the manufacturer's nor any Federal or State governmental agency.

Mr. CUNNINGHAM. Well, as a matter of fact—

Mr. ROGERS of Texas. The gentleman has 1 minute remaining.

Mr. CUNNINGHAM. I will go to my conclusion, then.

On the 16th page of your booklet "Traffic, Accident, Mileage Death Rate, 1964," you list the various States. You start with Connecticut at 2.6 and you go down to South Carolina at 8.9.

In all of these States they use the same automobiles. How, then, do you figure that Connecticut has a 2.6 figure and South Carolina has an 8.9 figure? They all use the same automobiles, so there must be other factors. You would certainly admit that, I am sure.

Mr. KELNER. One of them may have been law enforcement, although that may have been subject to dispute. When Senator Ribicoff was Governor of Connecticut, he became known for the rigid law enforcement policies that the State adopted under his urging, but that may be only one factor.

It may be the character of the highway system, the nature of the driver, local conditions, traffic, and so on. I don't think anyone has a responsible answer that can be given to your question.

Mr. MACDONALD. Will the gentleman yield for one point?

Mr. ROGERS of Texas. The time of the gentleman has expired. The Chair recognizes the gentleman from California, Mr. Van Deerlin, who may yield.

Mr. VAN DEERLIN. I will yield to the gentleman from Massachusetts for a brief question.

Mr. MACDONALD. Thank you, sir.

I would like to point out to the gentleman from Omaha and to the gentleman testifying that in Connecticut, if you go 51 miles per hour there is a State trooper who takes you under his control and you are either fined or jailed.

I would say in a direct answer to the gentleman that I don't know anything about South Carolina, but I do say that the minute this law was passed in Connecticut, of exceeding 50 miles per hour, the death rate in Connecticut went down on a graph at a degree which was astronomical.

Mr. KELNER. That is true. I recall that. They will take your license away at the slightest provocation, compared to other States.

Mr. CUNNINGHAM. Will the gentleman yield to me for 10 seconds?

Mr. VAN DEERLIN. Certainly.

Mr. CUNNINGHAM. In response to that, that proves the whole point, that it is the many other factors other than the automobile that causes this difference between fatalities in the various States.

Mr. VAN DEERLIN. Now that we have heard from all the "tigers" on the committee, I would like to set at rest this matter of whom or what you represent, Mr. Kelner. How long have you been a member of the American Trial Lawyers Association?

Mr. KELNER. Sixteen years, sir.

Mr. VAN DEERLIN. Has it been under the same name all those years?

Mr. KELNER. No. It was formerly called the National Association of Claimants' Council of America, meaning those who are claiming money damages, as distinguished from defendants' lawyers. It was changed in 1964 to American Trial Lawyers Association.

Mr. VAN DEERLIN. This was not just a false front name, I presume. It was a name which represented the thrust of the work performed by the membership of the organization?

Mr. KELNER. That is right, sir.

Mr. VAN DEERLIN. Would you agree with Senator Ribicoff that the apparent change of position taken by the industry here yesterday was more tactical than substantive?

Mr. KELNER. In my humble judgment, he is right, because I am basing my opinion and my interpretation of this change of position on two or three factors:

One, that the vast change in public opinion, based upon its present sophistication and the great deal of information that the publicity media has shed on this problem has so convinced the public that we must have drastic changes that I believe the auto industry, and this is my own interpretation, realizes that it is inevitable that something positive must be done.

But there are, I believe, other proposals regarding court reviews of procedures, regarding setting of standards, research, calling in consensus opinions of the various States, and a variety of other ideas, including the argument about economic impact, a balance of economics against necessity—I believe that those are delaying tactics.

I believe that as you get farther in your hearings their position will be clarified with regard to that desire to delay the eventual day that meaningful standards are promulgated and mandated into the American automobile. I am basing it on their record of what they have done in the past. I hope I am wrong.

Mr. VAN DEERLIN. You mentioned the economic factors. How serious a price tag is meaningful reform going to carry for the auto industry with the kind of changes you have advocated here today—the bumpers on the side, and the shock-absorbing bumpers? Do you have any idea of what the percentage price increase in cars is going to be?

Mr. KELNER. I don't think even the auto industry can project that down to the last dollar, but I can equate my opinion with what is known in the way of cost charges for model changeover.

To change over an automobile, and we heard figures from Mr. MacDonald, I have heard the figure that it is approximately \$700 per car per year for a model changeover where they just change the shape of a fender or change the trim of the chrome. Each of those parts involves investment of millions of dollars for dies which stamp the parts out so they can be produced at the lowest cost.

If you were to skip one model year, I would hazard the guess, and I would be wrong, but I would like the auto industry to say what it would cost, if they were to skip one model changeover for 1 year and put all of that money or the equivalent into the safety devices for the various dies, engineering, castings, technological improvements, I dare say the American public would applaud them to the skies and we would have some real lifesaving features.



I cannot give you a more precise cost analysis than that because the facts are obviously not within the possession of any of us here, and no one but the auto industry could begin to project.

Mr. VAN DEERLIN. You think they could go into removing some of the tail fins and so forth?

Mr. KELNER. Absolutely.

Mr. VAN DEERLIN. As soon as the public is convinced that it would just as soon be safe as sexy, we will be on our way.

Mr. KELNER. I believe we are on our way, sir.

Mr. ROGERS of Texas. Mr. Mackay.

Mr. MACKAY. Thank you, Mr. Chairman.

I am well acquainted with Mr. Kelner's organization and its members, who are in very good standing in my district, and in the Atlanta area. I agree with the construction placed on your appearance, that you are motivated by the public interest, because if you were not motivated by the public interest you would welcome automobile wrecks because they are a source of business. I am a practicing lawyer myself.

I will hand you a list of 28 questions that I would request your association to comment on. I think your association has helped develop this issue in the country as a whole. I found your statement dealing with many engineering problems that are really not the concern of the committee.

As I see it, we have written the poetry, and this committee has to write the prose. We have to shape legislation. As I understand it, you agree that we do not have reliable statistics, we do not have adequate research, and we do not have adequate safety performance standards; is that correct?

Mr. KELNER. That is correct, sir.

Mr. MACKAY. You do favor the establishment in the Federal Government of an agency, a Traffic Safety Agency, that will look at the total traffic accident phenomenon and try to give leadership in building a safer environment. That is the gist of your testimony?

Mr. KELNER. Yes, sir.

Mr. MACKAY. If you would, be kind enough to furnish me answers to these specific questions at your leisure for consideration by me and perhaps to insert into the record at a later date. I will be very grateful to you.

(The reply to Mr. Mackay's questions, when submitted, will be found in the committee files.)

Mr. KELNER. We will be honored to do that, Mr. Mackay.

Mr. MACKAY. Thank you, Mr. Chairman.

Mr. ROGERS of Texas. Mr. Gilligan?

Mr. GILLIGAN. No questions.

Mr. ROGERS of Texas. Mr. Farnsley.

Mr. FARNSLEY. You say you were amazed at the reports in this situation. I will tell you what happened to me the other day.

Secretary Connor was in here testifying, and I think public roads is under his department. I read to him from a study the Library of Congress made, at my request, which convinces me clearly that if the streets and highways were lit, a third of the accidents wouldn't happen.

Secretary Connor said this was well known, that it was true and that, they knew all about this. I am not sure I read it here, but I think

it says if they put lights on those superhighways when they built them, it would cost less than one-half of 1 percent of the highways. I am not sure I did, and I don't want to be unfair.

I said, "If you know all about this, why not do something about it?" He said, "Well, we have to weigh the various demands."

That floored me. I admit that. I just went away. I couldn't see what value he would give to saving 20,000 lives, how he was evaluating that, and 400,000 injuries. It looked to me like it would be pretty important, and that the street lights in many cities would cost less than the present lighting system.

In Washington, they use lights designed the year I was born, in 1907, and they are not very efficient.

Please take this to your committee and your people and read it, and pray over it. I am not making any progress. I haven't even found the right committee.

Mr. KELNER. Thank you. We will try to be that committee.

Mr. FARNSLEY. Thank you, Mr. Chairman.

Mr. ROGERS of Texas. Getting back to the remark I made a moment ago which might appear to be facetious, about what a person does prior to the time that they drive a truck; in the airline operations we know that there are certain requirements with regard to a person's conduct prior to the time he goes on duty. In your experience in the trial of these cases, has this question come up?

Mr. KELNER. It comes up in almost any late nighttime accident because the fatigue factor is always present. A person who will deliberately drive a car in a state of fatigue after working long hours or going out and carousing and drinking, obviously that is an element that is important as to whether he will win or lose his case.

On truck accidents, in particular, the first thing a trial lawyer looks at is when did you go on duty, did you have rest periods, did you stop for coffee, did you lie down in the truck and sleep, and when did the accident happen?

If you go back 48 hours or more, you will find that fatigue factor has not been the subject of proper supervision by the ICC or State agencies.

Mr. ROGERS of Texas. In your State laws having to do with this, where you have limitations, are there any States that have any laws with regard to what a person is doing before he goes on duty?

Mr. KELNER. They do not. I think it is a very fresh and original concept to get at this fatigue problem. It is not, to my knowledge, in any of the State laws. All they will prohibit is for buses, and this includes buses and trucks, in most State laws, under ICC, they will prohibit—

Mr. ROGERS of Texas. I remember when I was in the actual practice of law and we had a matter of this kind come up, with the fellow only driving the truck 6 hours, what he didn't tell until we got into the trial of the case was that he had been driving a private car for 12 hours before he got into the truck.

Mr. KELNER. But that is not covered by law. That is something you have to develop as a lawyer.

Mr. ROGERS of Texas. Mr. Macdonald, I think you had one more question. I yield you my 2½ more minutes.



Mr. MACDONALD. I appreciate that, Mr. Chairman.

Sir, yesterday—and I don't know if you testified in the other body—the automotive industry changed their position, as you may have heard or read, and they announced voluntary safety with built-in precautions by the industry which they agree is not enough, and they now seek refuge in a so-called commission called the Vehicle Equipment Safety Commission. Have you ever heard of such a commission?

Mr. KELNER. I have heard of it.

Mr. MACDONALD. Would you tell me about it? I never heard of it before yesterday.

Mr. KELNER. I don't profess to know very much about it, but I had heard of it before I heard it mentioned this morning. It is, I believe, a voluntary association. How it functions and what the exact works of it would be, I would not know.

Mr. MACDONALD. Have any of your members ever used these standards, this alleged commission standards, that they set up in any lawsuit either for or against an operator of an automobile?

Mr. KELNER. Not that I recall, sir. Not that I recall.

Mr. MACDONALD. Thank you.

Mr. ROGERS of Texas. Thank you very much.

Mr. CUNNINGHAM. Mr. Chairman?

Mr. ROGERS of Texas. Mr. Cunningham?

Mr. CUNNINGHAM. Will we go around the second time?

Mr. ROGERS of Texas. Did you have a question?

Mr. CUNNINGHAM. Yes.

Mr. ROGERS of Texas. The Chair will recognize you.

Mr. CUNNINGHAM. You said it is a fact that the 1966 automobile is no safer than those produced in 1940. You say that in your paper? If there was anything else of any interest in your paper, that alone would certainly cause me to not pay any attention to it, because that simply is not so. We have new braking systems, we have new dashboards, we have collapsible steering wheels, we have safety glass, tinted glass, turn lights, backup lights, more windshield vision. Those are just a few. How can you make a statement that 1966 automobile is no safer than that produced in 1940?

Mr. KELNER. You have the first base of the criteria on which you would base your estimates as to what would make a safe automobile. If you want my views on that, not just opinion, but the analysis and investigation and preparing and trying of cases in courts, with the consultation of experts, I would say my criteria for what make a safe automobile is to analyze what happens to an automobile in a crash, its stopping ability with regard to brakes. Do the brakes fail? I can document for you case after case where the defendants who were being sued said, "My brakes failed," and there were no dual brakes.

Mr. CUNNINGHAM. I will ask the committee to have you document that.

(The information requested, when supplied, will be found in the committee files.)

Mr. KELNER. I will be very happy to. Secondly, what happens on side impact? On side impact that car is little better than an eggshell. I could go right down the line.

Mr. CUNNINGHAM. When you say there have been no improvements, this just isn't so.

Mr. KELNER. I did not say no improvements. I said it was not safer in 1966 than it was in 1940. That is what I said, if I recall my language correctly. And it isn't safer.

Mr. CUNNINGHAM. Don't you think that the turn signals make a car safer?

Mr. KELNER. Yes.

Mr. CUNNINGHAM. Don't you think the backup lights make it safer, don't you think the safety glass, the tinted glass and all the other things?

Mr. KELNER. The tinted glass does not contribute to safety in my opinion, and the backup lights are not a great factor in the prevention of accidents. I don't think so. The basic structure of the car is still inherently weak. Its stopping ability in relation to the built-up speed and performance is no better, proportionately, than it was 25 years ago, and the survivability of the car in a crash and the protection of the drivers and passengers is no better than 25 years ago. The so-called safety glass, Mr. Cunningham, is not safe. I can give you photographs that will show the horrible disfigurements and blinding that they cause. They are not shatterproof.

Mr. CUNNINGHAM. It is the driver that causes the accident. If he happens to run it into a tree and runs it through his windshield, that is not the car's fault.

Mr. KELNER. He causes the accident and we know he is going to cause the accident. As clever and as smart and alert as he is, he will cause an accident or the other fellow will hit him. He is innocent and the other fellow is guilty, drunk, senile, falling apart physically, or has fits or convulsion.

One client came to me and had the shakes, and I asked, "How is it you drive down to my office?" And he said, "Nobody stops me. My license is renewed automatically." Sure he causes it, but what happens when the accident takes place? There is when the auto design can save the lives and minimize injuries.

Mr. CUNNINGHAM. Are you familiar with the good work of the Junior Bar Division of the American Bar Association in trying to approve court procedures and trying to get the judges to do a good job of enforcing the law?

Mr. KELNER. I am familiar with it, sir, and it is a commendable effort. That is part of the entire picture.

Mr. CUNNINGHAM. You did not mention that in your testimony.

Mr. ROGERS of Texas. The time of the gentleman has expired.

The bells have rung. The roll is being called.

The committee will stand in recess until 4 p.m.

The next witness scheduled is Mr. Lawrence F. Scalise, attorney general of the State of Iowa.

We will try to get started with that witness at 4 o'clock.

(Whereupon, a recess was taken from 3:40 p.m. until 4:25 p.m.)

#### AFTER RECESS

Mr. ROGERS of Texas (presiding). The committee will come to order for the consideration of the business before the committee.



STATEMENT OF LAWRENCE F. SCALISE, ATTORNEY GENERAL,  
STATE OF IOWA

Mr. ROGERS of Texas. Let the Chair make this observation, Mr. Scalise.

Are you going to read your statement?

Mr. SCALISE. I will. It is very short, Mr. Rogers.

Mr. ROGERS of Texas. Let the Chair say that the 5-minute rule will be strictly adhered to the rest of the afternoon. This will be the last witness today. We will try to get to the other witnesses tomorrow.

Any witness who desires to file his statement, who cannot be here at a later time to testify, may do so.

You may proceed, Mr. Scalise.

Mr. SCALISE. Mr. Chairman and members of the U.S. House of Representatives Committee on Interstate and Foreign Commerce.

I welcome this opportunity to appear here today and I ask you to accept my presence here as evidence of the State of Iowa's interest in obtaining safer automobiles for the public.

The attorney general of Iowa is charged by law with the protection of consumers from products which injure them. A consumer is a consumer whether what he buys is a \$5 gallon of paint that burns him when he uses it, or a \$5,000 automobile that injures him when he is involved in an accident.

The point is, the people of Iowa have a right to know whether automobiles in themselves—because of their design—contribute to 800 deaths and 32,000 injuries every year in our State as well as contributing to the 70 percent increase in the number of Iowan's injured in the past 5 years in automobile accidents.

In that regard, may I just say that in 1960 we were injuring 683 persons per 100,000 population. In 1965 we had jumped to 1,161 persons per 100,000 population. A fantastic increase—and yet there are those in the automobile industry who still say give us time—we in Iowa are out of time. As far as we are concerned, the State of Iowa is out of time. We have no sympathy for those who say to give us more time.

As you may know, we held automobile safety hearings in our State in January of this year.

The initial contribution of that hearing was to summon the attention of the citizens of Iowa to the possibilities for protecting drivers and passengers by the design and engineering of automobiles. The record indicates that fully 50 percent of those killed in accidents—25,000 Americans—could have survived had their automobiles been designed to protect them. That, in my judgment, is a startling and even shameful fact. It went uncontradicted in Iowa by the industry itself. I suspect that is not true today.

I invited them there to answer questions—to say, if they chose to and were able to, why the independent experts who appeared there were wrong in their conclusions.

I invited them to disclose the results of their own engineering safety tests.

I invited them to tell the people of Iowa what they are doing to make automobiles safer.

They chose not to appear.

They chose to say nothing.

They chose to send an industry lobbyist who had no technical background, and who refused to talk about the very subject of the hearing—the safety of automobiles and the safety policies of the automobile companies. Who, indeed, characterized the search for a safer vehicle through design as a “silly political move.”

I would suggest to Karl Richards of the AMA that he convey the “silly political move” thought to those millions of Americans who are scarred, maimed, fractured, crippled, and dying because of a non-deforming dash and instrument panel, or a protruding knob, or a metal headliner, or a rearward displacing steering column, and so-called safety glass.”

I am sure that Mr. Richards would also characterize Dr. George Brown's work as a silly political move even though Dr. Brown is a research scientist at VA hospital in Iowa City and barred from politics. Dr. Brown is in fact doing interesting work on his own time and at his own expense. He is making a study of the mechanism of motor vehicle injuries in Johnson County, Iowa. A description of that study as well as the results of his inquiry through February and March of this year are attached hereto. It is extremely important and we are hopeful that it can be continued.

Insofar as the safety bills that are now before you are concerned, may I assure you of the fact that we in Iowa want Federal legislation that will accomplish as a minimum: meaningful safety standards, and also legislation that will compel the automobile industry to place on the public record copies of their directives to dealers in respect to repairs or modifications necessary to correct defects where those defects relate to the safety of automobile occupants.

We also believe that the States do have a role to play in automobile safety. Through people like Dr. Brown, we would be able to do part of the basic research and testing at our great universities located in Ames and Iowa City. We in Iowa would like to assist you in your search for a safer automobile and I can assure you of my cooperation as a State official toward that end.

If we do less in this term of Congress, it indeed will be the spring of our hope, and the winter of our despair.

The need is overwhelming.

The remedy available.

(Attachments to Mr. Scalise's statement follow:)

#### MECHANISM OF MOTOR VEHICLE INJURIES

(By George W. Brown, Ph. D.)

The Motor Vehicle Injury Rate is a major Public Health hazard. In Iowa, the Injury Rate per 100,000 population has increased from 683.2 in 1960 to 1161.1 in 1965. This is approximately a 70% increase in five years, and no reduction of the rate of increase is apparent. Despite the enormity of the problem, very little scientific research is being accomplished in this area. The reason for this, and a plea for research endeavors was stated by Haddon in the Annals of the New York Academy of Science in 1963. The following is a direct quote: “Many public health groups and individuals who first come to accident research are hesitant to attempt to contribute to the field because of what they have heard about its complexities, because of the voluminousness of the literature,



much of which is not worth reading, and, in particular, because of the dogmatic statements of licensing and other agencies as to the cause of accidents. Nonetheless, but few of the answers commonly cited are based upon evidence of even the minimum quality acceptable in other research fields. It is remarkable, further, that despite their more than one-half century of designation as those responsible for the control of this longstanding source of morbidity and mortality, the agencies so designated have produced almost no scientifically acceptable research, a fact which should raise moral as well as scientific questions, since more than one million died in motor vehicle accidents in the U.S. alone during the same period. In addition, the situation is with but very rare exceptions showing no signs of improvement at a time when our total deaths and injuries appear to be mounting. In view of this scientific and research vacuum, and, in particular, in view of the variables now known to be of importance, health departments, epidemiologists, and behavioral scientists must be involved in planning motor vehicle accident research and prevention measures, just as they have been concerned with research and prevention activities directed at essentially all other causes of morbidity and mortality. A final reason is that such departments are able to provide the apolitical and professional atmosphere which is necessary for research of quality and pertinence."

A study of available data suggests that each State may have significant variables in the motor vehicle injury problem pertinent primarily to that State. For example, in Iowa the highest injury rates are on County Routes, with cities of 50,000 to 100,000 population second, and controlled access highways third. This occurs despite the obvious low traffic density on the County Routes.

Since Iowa may have unique problems, it was believed this research endeavor should begin with an objective study of a representative group of local accidents. All three major variables surrounding an accident (the vehicle, the roadway, and the driver) must be studied. Thus this research endeavor is directed to testing the following three hypotheses.

1. There may be common contributing causal factors for a significant number of motor vehicle accidents. These factors may be within the realm of any or all of the major variables mentioned above.

2. There may be common contributing causal factors for producing bodily injuries in a significant number of motor vehicle accidents. This will probably be related to the structure of the vehicles involved.

3. The incidence of retrograde amnesia for events just prior to the accident may be quite high among accident victims. This concussive symptom can be important when evaluating testimony concerning the accident event.

The accidents included in the study are the ones where the victims are brought to the Surgery Outpatient Clinic of the University Hospitals for treatment. If the patients are able to communicate, the personnel in SOC obtain the patient's version of the accident. Since this represents a Doctor-Patient relationship, all communications are confidential, and material such as alcohol consumption prior to the accident can be elicited without fear of reprisal. The exact nature of the patients injuries are determined by the various hospital services involved and become a part of the accident record.

With the patient's version of the accident and a knowledge of injuries sustained, the next step in the procedure is to find the wrecked vehicle or vehicles. The vehicles are identified by make and model, and examined to determine the structural components which caused injuries. The tires, brakes, steering, and wheel alignment are also checked.

The final step in the procedure is a visit to the scene of the accident to attempt a visual reconstruction of the accident environment.

A pictorial record of the vehicles and/or accident environment is made when it is helpful. The official Officer's Report of the accident is obtained from the State Safety Commission, and a complete case history of each accident is assembled.

At the end of each month, the case histories of all accidents for that month are reviewed, and the pertinent factors relating to the objectives of the study are tabulated. These monthly summaries should yield a sizeable sample of empirical data suitable for analysis in approximately one year.

I believe this method of approach can result in development of factual information concerning remediable factors that are causing injuries on our roadways. When the "privacy of the automobile" is ignored, and all the variables surrounding motor vehicle accidents are examined objectively, the injury problem is not as complex as we have been led to believe.

## FEBRUARY 1966 SUMMARY

*Common contributing factors for causing accidents*

	<i>Incidence</i>
Tinted windshield reducing night vision.....	6
Overloaded or worn tires.....	6
Inadequate roadway.....	6
Drinking driver.....	6
Speeding.....	4
Front end alinement.....	2
Overpowered automobile.....	2
Irresponsible driver.....	2
Poor traffic signals.....	2
Poor visibility of automobile.....	2
Driver lost control.....	1
Poor visibility of instruments.....	1
Light weight automobile.....	1
Defective steering.....	1
Fatigue.....	1
Vehicle-related.....	21
Road-related.....	8
Driver-related.....	14
Seat belts not used.....	13
Windshield shattered.....	7
Ridged dash.....	7
Fractured horn ring.....	5
Side windows shattered.....	4
Glove compartment door.....	3
Folding front seats.....	3
Doors opened.....	3
Seats broke loose.....	3
Broken rear view mirror.....	2
Rear window shattered.....	2
Weak frame construction.....	2
Bumper design.....	2

*Automobiles involved in accidents*

Make and model	Injuries	Deaths
1956 Buick 4-door Special.....	2	0
1957 Olds 88 4-door sedan.....	1	2
1965 Olds F-85 Cutlass convertible.....	4	0
Motorcycle.....	1	0
1959 Ford Fairlane 4-door.....	1	0
1961 Pontiac Bonneville hardtop coupe.....	1	0
1955 Pontiac Starchief hardtop coupe.....	1	0
1960 Chevrolet Bel Air 4-door sedan.....	2	0
1959 Edsel Ranger 4-door sedan.....	1	0
1965 Chrysler Newport hardtop sedan.....	2	0
1965 Chevrolet Malibu SS 2-door hardtop.....	2	1
1963 Rambler 4-door.....	0	2
1964 Volkswagen.....	1	0
1955 Ford Customline 4-door.....	3	0
1962 Ford Fairlane 500 4-door.....	1	0
1959 Pontiac Catalina Station Wagon.....	1	0
Total.....	24	5
General Motors.....	14	3
Ford.....	6	0
Chrysler.....	2	0
American Motors.....	0	2
Volkswagen.....	1	0
Motorcycle.....	1	0



## MOTOR VEHICLE INJURY RESEARCH—MARCH 1966 SUMMARY

*Automobiles involved in accidents*

Make and model	Injuries	Deaths
1965 Volkswagen	2	0
1963 Ford Galaxie 500 convertible	0	0
1962 Chevrolet Corvair	1	0
1960 Cadillac 62 2-door hardtop	1	2
1957 Pontiac hardtop sedan	1	1
1966 Ford Galaxie 500 4-door sedan	3	0
1966 Ford Econoline pickup truck	0	0
1966 Ford Galaxie 500 4-door sedan	1	0
1962 IH B-130 Pickup truck	1	0
1966 Ford Mustang 289 V-8	2	0
1963 Dodge Dart GT convertible	1	0
1964 Chevelle Malibu sport coupe 285	1	0
1964 Cab-over GMC 5000 truck	1	0
1960 Cab-over IH 200 truck	0	0
1956 Chevrolet Bel Air 4-door sedan	0	0
1954 Chevrolet Special 2-door sedan	1	0
1962 Volkswagen	1	0
1955 Pontiac Tempest hardtop coupe	0	0
1964 Chevy II 100 2-door sedan	1	0
1953 Ford 2-door sedan	1	0
1960 Ford Fairlane 500 2-door club sedan	1	0
1964 Pontiac Catalina sport coupe	1	3
1955 Oldsmobile 88 4-door sedan	0	0
1961 Cab-over IH truck	1	0
1961 Chevrolet Impala hardtop sport coupe	1	0
Total	23	6
IH trucks	2	0
General Motors	9	5
Ford	7	1
Chrysler	2	0
Volkswagen	3	0

*Common contributing factors for causing accidents*

	Incidence
Inadequate roadway	8
Overloaded or worn tires	7
Front end alignment	7
Tinted windshield reducing night vision	5
Poor visibility of automobile	5
Speeding	4
Defective steering	3
Drinking driver	2
Weather conditions	2
Fatigue	2
Obscured vision (vehicle)	2
Inadequate traffic signals	1
Instrument visibility	1
Irresponsible driver	1
Driver lost control	1
Vehicle-related	30
Road-related	11
Driver-related	10
Seat belts not used	10
Collapsed frame and/or body	7
Fractured horn ring	6
Doors opened	6
Windshield shattered	5
Seats broke loose	5
Ridged dash	4
Side windows shattered	4
Crowded driver and passenger space	4
Sharp windshield molding	3
Steering post	3
Shattered rear view mirror	2
Glove compartment door	1
Folding front seats	1
Sun visor	1

Mr. ROGERS of Texas. Thank you, Mr. Scalise, for your statement and your attachments.

The Chair recognizes the gentleman from Massachusetts, Mr. Macdonald.

Mr. SCALISE. Mr. Macdonald, before you start, and Mr. Rogers, may I also make a part of my statement the transcript of the public hearing that we held in Iowa in January, on the 10th, 11th, and 12th.

Mr. ROGERS of Texas. I think that would be a proper item to be received for the file rather than the record. It will be so received for the file and properly referred to in the record.

Mr. SCALISE. Thank you.

Mr. MACDONALD. I have no questions, Mr. Chairman, but I would like to compliment Mr. Scalise on his statement and congratulate him on your representing the forward-looking people of Iowa. Many of us on this committee share the feelings of Mr. Scalise on this subject.

Mr. SCALISE. Thank you very much.

Mr. ROGERS of Texas. Mr. Cunningham.

Mr. CUNNINGHAM. Thank you, Mr. Chairman.

I want to welcome the distinguished attorney general of Iowa, our neighboring State. I have a few observations.

On the first page, you say the point is the people of Iowa have a right to know whether automobiles in themselves, because of their design, contribute to 800 deaths and 32,000 injuries every year in your State.

May I have the source of that statement?

Mr. SCALISE. The source of the statement, sir, in terms of the statistics? From the Motor Vehicle Department of the State of Iowa.

Mr. CUNNINGHAM. Is that in your supporting tables?

Mr. SCALISE. It comes from my mouth, Mr. Cunningham.

Mr. CUNNINGHAM. It is not in the supporting tables?

Mr. SCALISE. No.

Mr. CUNNINGHAM. Who in the State of Iowa makes this statement, so that we can have it in the record?

Mr. SCALISE. Right now the attorney general of Iowa makes that statement. The point is our figures show that.

Mr. CUNNINGHAM. You have been in traffic safety work prior to your being attorney general?

Mr. SCALISE. Yes, I guess you would have to say that I have been.

Mr. CUNNINGHAM. In what way?

Mr. SCALISE. As an attorney associated in the practice of law in trying accident cases.

Mr. CUNNINGHAM. All I want to know is this: You make the statement that 800 deaths and 32,000 injuries were caused by automobile design.

Mr. SCALISE. It was contributing.

Mr. CUNNINGHAM. That is the first information that anyone has been able to supply, but it is not documented. Is that your own personal view?

Mr. SCALISE. No. My point is we have a right to know whether or not automobile design contributes to that many deaths that occur in our State.

Mr. CUNNINGHAM. I just got the notion that you are saying that this many deaths and injuries are due to automobile design.



Mr. SCALISE. The point is we have a right to determine whether or not.

Mr. CUNNINGHAM. Yes, you have. You are not making the statement that that many deaths and injuries result from automobile design? You are making that statement?

Mr. SCALISE. I am not. I am making the statement that we in Iowa have a right to determine whether or not automobile design, in and of itself, contributes to the 800 deaths, 32,000 injuries, that we sustained in 1965. We have a right to know whether or not automobile design contributes to that.

Mr. CUNNINGHAM. That is right. On page 2, however, you say the record indicates fully 50 percent of those killed, 25,000 Americans, could have survived had their automobile been designed to protect them.

Mr. SCALISE. Yes.

Mr. CUNNINGHAM. What is the source of that?

Mr. SCALISE. The source of that is the record that was made at the public hearings on automotive safety in Des Moines, Iowa, on January 10, 11, and 12.

Mr. CUNNINGHAM. Did this come from the investigative reports of the officers that determined the cause of the accidents?

Mr. SCALISE. This came from two scientists, one an M.D. and the other a basic research scientist, a biophysicist, involved, as a matter of fact, in Government work in terms of NASA contracts, Dr. Carl Clarks. Both of these will testify here. It also came from a statement on a film, entitled "Every Second Car," which you may or may not have seen, wherein a gentleman with Liberty Mutual Insurance Co. indicated that fully 60 percent of all those who are killed in auto accidents were killed under survivable conditions and would have survived had they had such things as collapsible steering wheels, dual braking system, the three-point seat belt, and things of that nature.

Mr. CUNNINGHAM. Sir, you say the "record indicates." The only way the record can indicate that is if every accident were investigated in the State of Iowa and a determination were made by the accident investigation squad, either local or State, as to the probable cause of that accident. That is the only record that would indicate something on which you could base this statement, not some doctor who has not looked at the records. You have a records bureau, don't you?

Mr. SCALISE. Mr. Cunningham, I am not talking about the probable cause of accidents.

Mr. CUNNINGHAM. You say, "The record indicates that 50 percent, 25,000 Americans, could have survived had their automobile been designed to protect them."

Mr. SCALISE. The point is, sir, the record that I am talking about—

Mr. CUNNINGHAM. We have had quite a few expert people here. They don't even have that information available.

Mr. SCALISE. The point is that the record I am talking about is the record that was made there in Des Moines at the auto safety hearings, a record that I would file with you, which you may peruse, look over, and determine for yourself as to the accuracy of my statement here.

Mr. CUNNINGHAM. Would you agree that the only way you can determine the cause of accidents is by having an accident investigation bureau at the scene of the accident to determine the cause of that accident and have that in the accident records division of any police or State patrol? That is the only way you would know what causes accidents.

Mr. SCALISE. Let me put it to you in this manner: I am not talking about the cause of accidents. I am talking about the cause of injury. You may be familiar with the Cornell Aeronautical Laboratory, which has done a great deal of work in determining the cause of injury. You may be familiar with Dr. Robert Wolf's statement made at the American Medical Association meeting in Miami, Fla., in 1964, where he indicated that the three major sources of injury in every automobile were these following things:

1. A rearward displacing steering mechanism.
2. The windshield.
3. A nondeforming dash or instrument panel.

That is what I am talking about.

Mr. CUNNINGHAM. If I run into a tree and have an accident, I am likely to shatter my windshield. But that may not be due to the fault of the car.

Mr. SCALISE. The point is, if you run into a tree at 30 miles an hour, the car stops, but as an occupant, you do not. You keep going and you keep going until you strike the interior of that car.

Mr. CUNNINGHAM. I understand that. But you could build a car like a Sherman tank and you would still keep going.

Mr. SCALISE. And you could build a car—

Mr. CUNNINGHAM. I am familiar with the State of Iowa, and I am familiar with the fact that you have had a bad accident experience in Iowa, as compared to our State.

Mr. SCALISE. That is a conclusion you reach, Mr. Cunningham. I do not.

Mr. CUNNINGHAM. But Iowa has 5.8 deaths on a mileage basis as compared to 2.6 in Connecticut, and your people are both driving the same automobiles.

Mr. ROGERS of Texas. The time of the gentleman has expired.

You may respond.

Mr. SCALISE. I am not so concerned with rates as I am with people; 800 people to me is pretty tragic. I don't care if that is 1 percent or less than 1 percent; 835 in 1964 is pretty tragic; 29,000 more injured is pretty tragic; 32,000 injured is pretty tragic, it seems to me.

Mr. CUNNINGHAM. One person is tragic. My point is, why is it that Iowa has 5.8 percent and Connecticut has 2.6 and you are both driving the same cars? The point is that there are many other causes of accidents than the cars.

Mr. ROGERS of Texas. The time of the gentleman has expired.

Mr. Mackay?

Mr. MACKAY. Thank you, Mr. Chairman.

I want to thank you, Mr. Attorney General, for coming over here and appearing.

Mr. SCALISE. Thank you, Mr. Mackay.



Mr. MACKAY. I think the work that was done in Iowa and the failure of the automobile industry to appear there put a lot of us on notice that we will have to work hard on this subject.

I have prepared 28 questions which I will not ask in the interest of time. I will hand them to you, and some other material, and I hope when you return you can consider it and comment on it.

Mr. SCALISE. I will be happy to.

(The reply, when submitted, will be found in the committee files.)

Mr. MACKAY. In the first place, has it been your experience that the data, statistics, on which you can base hard judgments are shockingly inadequate?

Mr. SCALISE. Absolutely. There is no question about that.

Mr. MACKAY. Should we establish a Federal agency for the explicit purpose of collecting data, on which you could answer questions such as you have just been asked by Mr. Cunningham?

Mr. SCALISE. Absolutely.

Mr. MACKAY. Do you think the Federal Government ought to explicitly assign to an agency of the Federal Government the responsibility for comprehensive research in pulling together private research on the total traffic accident phenomenon?

Mr. SCALISE. I would be in favor of that. I think some people in the States can give you some help in that regard.

Mr. MACKAY. Yes, but to pull it together here.

Mr. SCALISE. Absolutely.

Mr. MACKAY. Thirdly, would you favor the fixing of mandatory safety performance standards by the Federal Government, applicable to all motor vehicles?

Mr. SCALISE. We most certainly would.

Mr. MACKAY. I want to make one further comment. The automobile industry just this week failed to appear in an important public meeting to discuss issues involving automobile safety. After their appearance here yesterday, I think that they now understand that this is not a fever with which they are confronted, but a tremendous, genuine thrust of public opinion that demands action at this time. I would want to say this in their defense: That I think their change in their position reflects an awareness of that.

Mr. SCALISE. I don't think there is any question about that. We see that particularly because of General Motors, and they have to be commended for this, their position on collapsible steering wheels. They have indicated that by the year 1967 we will have a collapsible steering wheel as standard equipment on every GM automobile. They ought to be commended for that. I hope they go forward.

Mr. MACKAY. I would like to ask the State governments to assist us in getting this through the Congress. The Traffic Committee of Georgia will testify next week in support of the kind of action that you recommend. There are still people who are apathetic, and the more people we can get here with the vigorous position you have the more likely we are to get this result.

Mr. SCALISE. Thank you.

Mr. MACKAY. I have no further questions, Mr. Chairman.

Mr. ROGERS. Mr. Farnsley.

Mr. FARNSLEY. I yield to Mr. Macdonald.

Mr. MACDONALD. Mr. Mackay, I just wanted to keep the record straight that it doesn't appear from the testimony yesterday, or it didn't appear to me and I would be happy to discuss it with the witness or yourself—it didn't really appear to me that the automotive industry's attitude toward legislation had really changed.

Mr. MACKAY. Mr. Chairman, may I comment on that?

Mr. MACDONALD. Let me finish and you can comment on the entire thing. Actually, their only change was, instead of being self-regulated as they had said over in the Senate, they now come to us and in answer to my question, they said it was their final position, and throw their support for regulation behind some nonexistent or at least non-active Vehicle Equipment Safety Commission.

So from self-regulation to being regulated by some nebulous body who, as far as I can find out, has no criteria to guide it, I don't think constitutes a real, substantive change.

I will be happy to yield to the gentleman.

Mr. MACKAY. Mr. Chairman, yesterday—will you yield again, Mr. Farnsley?

Mr. FARNSLEY. I will yield to the gentleman.

Mr. MACKAY. I agree with you, Mr. Macdonald, that this is a crucial point, but if you were present in the room when I pressed Mr. Bugas on this point, and I read his statement again, I asked him if he acknowledged that the Department, the Secretary of Commerce or the Secretary of Transportation, ought to have the power to fix mandatory safety performance standards, even though his judgment might be in conflict with the industry and with the VESC, and he said "Yes." He said, "What we are asking for is the right to be consulted and for VESC to be consulted, before he promulgates the mandatory safety standards."

I said, then, "I think that the industry and the VESC ought to be consulted." But I think in fairness to the automobile industry, if they are coming our way, I don't want to fight them; I want to encourage them to come this way. But their testimony was such that they recognized they had come to this position. They didn't present any suggested language.

Lest Mr. Bugas get off this position, I wrote a letter to him this morning and said I would hope he would send suggested legislative language. Senator Ribicoff suggested that he thought we were presented with a tactical move rather than a basic change of position. That is why I reexamined him on this point.

He said that they accepted this; that this should be the law. So I want to be fair with them because I think if we are unfair with them we make our job more difficult. I felt that they did change their position and we ought to hold them to it.

You will remember you said, "Will you stick by your new position?" and that was when you didn't get a definite answer. But I got a definite answer.

Mr. MACDONALD. You are more persuasive than I.

Mr. ROGERS of Texas. The gentleman from Kentucky.

Mr. FARNSLEY. Thank you, Mr. Chairman.

I would like you to read this, if you would, Mr. Scalise.



Mr. SCALISE. I have read your document, Mr. Farnsley, and I think it is fine.

Mr. FARNSLEY. That is all, Mr. Chairman.

Mr. ROGERS of Texas. Mr. Macdonald?

Mr. MACDONALD. I would just like to have the record made abundantly clear, if I may, that I am not trying to be unfair to the automotive industry, and certainly if they are realistic and if they want to do what the Congress wants to do, which is to promote safety on the highways, they are the people who can do the best job of it. I am not trying to make them a whipping boy.

It is just that they have evidenced over a period of years a great reluctance to take any steps at all to do the things that, Mr. Mackay, you feel are necessary, I am sure from your questioning, and which I do. I am not picking on the industry, as such. It is a very valuable one. But I do think they need some guidance, and I think it is up to this committee to give them that guidance.

Thank you, Mr. Chairman.

Mr. MACKAY. Mr. Chairman, may I make one further comment?

Mr. ROGERS of Texas. Mr. Cunningham will be the next in order to be recognized. He may yield to you for a comment.

Mr. CUNNINGHAM. As long as we are going to have a second round, I have a few other things I wanted to say.

I again go back to this booklet that the preceding witness put out, "Traffic Accident Mileage Death Rate, 1964," which shows Connecticut at 2.6; Iowa, 5.8; South Carolina at 8.0.

All these people are driving the same cars.

Mr. SCALISE. I think the point is—

Mr. CUNNINGHAM. So there is something that is being the cause of these accidents besides the automobile which everybody seems to be wanting to make a whipping boy here.

I don't know what they are not doing in these other States that they are doing in Connecticut. Evidently they are far behind in traffic engineering, street lighting, many, many other things, and enforcement. That is the only conclusion I can draw.

So I am glad, even though I disagreed with the previous witness, that he presented this table, because this proves the whole story and the whole point. Connecticut can cut it down to 2.6, so why can't every other State? We are all driving the same types of automobiles.

I would to say to the distinguished gentleman from Iowa he has some tables, motor vehicle injury research, automobiles involved in accidents.

It lists many, but I don't know that that proves anything. I don't know if these are used or new automobiles, and even if they were all new it doesn't prove anything that a Ford or a Chevy or some other car was involved in an accident.

On another table, motor vehicle injury research, common contributing factors for causing accidents. All of these causes are not due by any means as I look at them, to the automobile. Inadequate roadway, overloaded or worn tires, front end alignment, et cetera. If people don't take care of their car, the front wheels will get out of line.

Speeding, defective steering, drunken driver, weather conditions, fatigue, obscured vision. These are the things that I am trying to

point out, having been in this work professionally, are the major causes of the accidents. And yet it is a tragedy that most of the testimony seems to be centered around the automobile when there are no figures, none whatsoever.

Mr. MACDONALD. Will the gentleman yield for a short question?

Mr. CUNNINGHAM. May I just finish my thought?

There are no statistics that prove that the design of the automobile is a major factor. We are all for a good safety engineered automobile. I am for it. There has been a great deal of improvement in the design of an automobile. There are more coming. But if we pass a bill and say it is the automobile that is causing all of this, and overlook all of these other things, uniform regulations between the various States, nationwide inspection, better enforcement on the local level, all of the other things, better cooperation from the courts, we are not going to solve this problem but we will only sweep it under the rug.

I yield to the gentleman.

Mr. MACDONALD. The only question I wanted to ask, and I will direct it to the witness, is this: What is the speed limit in your home State of Iowa?

Mr. SCALISE. It depends on where you are. If you are on the interstate, for example, during the nighttime, it is 60, and during the daytime it is 70. If you are on a county road, some county roads have a speed limit of 50. Some of them have a speed limit of 60.

If you are on an Iowa highway, arterial highway, it has, normally, a 60-mile-an-hour speed limit. However, what we have done is to cut down the speed limit on those highways that have a great deal of traffic where a great many people are injured. We have gone that far in our law enforcement program.

Mr. MACDONALD. After you cut down the speed limit, did the accident rate also drop?

Mr. SCALISE. No, it hasn't. The fact of the matter is it is worse.

Mr. ROGERS of Texas. Mr. Mackay?

Mr. MACKAY. Mr. Chairman, further elaborating on our discussion of a moment ago, I cite page 53 of the statement of the Automobile Manufacturers Association presented by John S. Bugas on April 26, 1966, in which he says that the Secretary should go ahead of the industry, and also even if the States do not arrive at certain standards.

I think where we have to tighten up the position of the automobile industry is where they say that if the Secretary finds that certain minimum standards are necessary. This has been construed by some to say that Congress is saying this is purely a discretionary matter.

The sentiment that I feel, and which I think many of us feel, is that we are not talking about a discretionary matter when you get down to something as elementary as having brakes that will stop a car that has 420 horsepower. We want an explicit assignment of responsibility. But, as I said a moment ago, the automobile industry, I think, has come to the table now, and it is going to have a different attitude.

I hope it will be a more helpful one.

Mr. SCALISE. I hope so, too.

Mr. MACKAY. I will say that every State likes to claim superlatives and I think for the moment we can claim that we have a bloodier record than you have.



No further questions.

Mr. ROGERS of Texas. Mr. Farnsley is recognized.

Mr. CUNNINGHAM. Will the gentleman yield?

Mr. FARNSLEY. Yes, sir.

Mr. CUNNINGHAM. Mr. Chairman, we have the gentleman from Iowa here and their traffic mileage death rate is not too good. I am wondering whether we plan to call officials from Connecticut, Massachusetts, New Jersey, and some of those that do have good accident figures.

Mr. ROGERS of Texas. Are you addressing your question to me? I am sorry.

Mr. CUNNINGHAM. Maybe it is in the form of a parliamentary inquiry. I said we have the gentleman from Iowa here, where the death record per 100 million vehicle miles is above the average, being 5.8.

Is the committee going to call officials from those States who have the lowest deaths per 100 million miles, like Connecticut, Rhode Island, Massachusetts, New Jersey and so forth, so we can find out from those officials how they did it?

Mr. ROGERS of Texas. If the gentleman will yield, that is a question that should be addressed to the chairman of the full committee. I will be glad to convey it to him. I am sure he will be glad to answer it in the morning. I don't know.

Mr. MACDONALD. For the further edification of the gentleman—

Mr. FARNSLEY. I yield to the gentleman.

Mr. MACDONALD. The Senator from Connecticut, the State that has, according to the tables you have been quoting from, the lowest death rate, will be testifying before the committee, and he is the gentleman who put in a safety program as Governor of the State of Connecticut.

I am sure he will be happy to answer any questions you have.

Mr. CUNNINGHAM. If the gentleman will yield further, I know the Senator from Connecticut has done an excellent job, and we all agree with that. We are still all driving the same automobiles. His State is on top.

I would simply like to have him tell this committee how he did it so that these other States who are doing a pretty bad job, according to these figures, might benefit from it.

Mr. MACKAY. Mr. Chairman, will the gentleman yield?

Mr. FARNSLEY. I yield.

Mr. MACKAY. I would just like to point out to Mr. Cunningham that the most tireless and enthusiastic advocate of strong, mandatory safety performance standards on the part of the Federal Government is the former Governor of Connecticut, who achieved this record. I think that says a lot.

Mr. CUNNINGHAM. Will the gentleman yield further?

Mr. ROGERS of Texas. The time of the gentleman has expired. All time has expired. Mr. Younger has declined to take his time.

To the other witnesses scheduled today, as I said earlier, if you prefer to file your statement, it will be received. It presently appears that there will be an opportunity for you to testify next Tuesday, Wednesday, or Thursday, or perhaps tomorrow if they finish with the other witnesses who have been previously scheduled.

If any of you would like to file your statement and then take your chances, the Chair will be glad to receive it now, or you can do it tomorrow.

Mr. MACKAY. Mr. Chairman, Mr. Hall is here representing the Independent Garage Owners of Georgia, and he would like to testify very much. His time is limited and I would hope that he can be heard in the morning.

Mr. ROGERS of Texas. This will depend upon the chairman of the full committee who will be back in the Chair in the morning. I would love to stay here all night and hear all of you, but all of the members have other duties and we just have to do the best we can. But I think in the morning, Mr. Mackay, if he would check on his chances of being heard tomorrow, if he is not able to be heard he will have to file his statement then.

The committee will stand in recess until 10 o'clock in the morning.

(Whereupon, at 5 p.m., the committee recessed, to reconvene at 10 a.m., Thursday, April 28, 1966.)



## TRAFFIC SAFETY

THURSDAY, APRIL 28, 1966

HOUSE OF REPRESENTATIVES,  
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,  
*Washington, D.C.*

The committee met at 10 a.m., pursuant to recess, in room 2123, Rayburn House Office Building, Hon. Harley O. Staggers (chairman) presiding.

The CHAIRMAN. The committee will come to order.

Yesterday the committee recessed, due to the legislative program of the House, and we were unable to hear all of the witnesses scheduled. I have made this agreement: We have a special group in here that represents many States. They are supposed to testify at 10 o'clock. Those gentlemen who are here and who were waiting yesterday, will they come and take the stand?

I am calling for Russell Brown. I would like to say, Mr. Brown, if you can take 5 minutes to present your testimony and stand by for questioning later, we would be glad to have you.

I will say that we will try to do the same thing for the other gentlemen we were not able to accommodate yesterday. Some of you have been standing by for some time, but we do have a large group that we promised to get on and we will hear them immediately after these gentlemen. We will save all questioning until later.

### STATEMENT OF RUSSELL I. BROWN, PRESIDENT, INSURANCE INSTITUTE FOR HIGHWAY SAFETY

Mr. BROWN. Thank you very much, Mr. Chairman.

I wish to summarize my remarks and request that my complete statement be entered into the record.

The CHAIRMAN. It will be so done.

Mr. BROWN. My name is Russell I. Brown. I am president of the Insurance Institute for Highway Safety, which has its offices here in Washington.

In my own behalf, and in behalf of the insurance institute, I want to express my special appreciation this morning to the committee for this opportunity to appear.

The problem you are dealing with is certainly one of the most important matters facing our country today. First a word about the Insurance Institute for Highway Safety: It was established in 1959, and is supported by the American Insurance Association, the National Association of Independent Insurers, and the National Association of Automotive Mutual Insurance Companies.

These associations represent more than 550 companies which write approximately 80 or 90 million policies. This united effort of the insurance business in highway safety, beginning in 1959, reflects activities that go back to the earliest days of automotive transportation in this country.

Through the years, insurance companies and insurance groups have made tremendous contributions both in funds and leadership and manpower to the traffic accident prevention program. This great interest of the insurance business continues undiminished.

The Insurance Institute for Highway Safety has a budget of \$1.8 million for 1966. From 1959 through 1966, a total of \$12 million will have been budgeted for traffic safety assistance. This assistance is provided in three ways:

1. Through financial contributions to national traffic safety service organizations for the purpose of providing technical services to States and local traffic safety programs.

2. Through financial and technical assistance to State traffic safety programs.

3. Through financial assistance to State citizen safety support organizations.

In our work throughout the country, we have observed that the States have a number of urgent needs in traffic safety. However, there is one need common to all States. That is the need for improved traffic records. The first priority of the Federal Government should be the development of a practical, compatible, and useful traffic records system that can be adopted by all States.

In mounting a balanced attack on traffic accidents, the States generally should have periodic motor vehicle inspection, broader driver education programs, stiffer driver licensing requirements with periodic reexamination, more uniform traffic laws, a modernization of the traffic courts, and accelerated training programs to supply the badly needed professional area of people working in this field.

The Federal Government can perform a valuable service in helping the States achieve meaningful traffic safety programs by providing leadership, guidance, and funds. Therefore, the Insurance Institute for Highway Safety supports legislation that will consolidate the traffic safety efforts of the Federal Government in a single department or agency as proposed by H.R. 13228 or H.R. 12548.

This will be accomplished either through an independent agency within a department, or a separate bureau of a department, as long as one person is charged with the responsibility of coordinating the efforts of the Federal Government in cooperation with the States.

Further, we believe that this person should report annually to the Congress on the progress of the traffic safety efforts and programs he has been charged to implement. If a State accepts a Federal grant for its traffic safety program, it is to be expected that such a program should be in accordance with uniform standards approved by the Secretary. This should include standards for motor vehicle inspection, drivers' licensing, use of uniform traffic control devices, and other necessary components of a balanced program.

It is our position that data compiled by recognized research institutions, although not conclusive, indicates that an improved vehicle



would help reduce the number of traffic accidents but, more particularly, the severity. We believe that title I of H.R. 13228 is a constructive proposal to accomplish this. In order to accomplish the objectives of this legislation, the Federal Government should have a complete research facility for testing vehicles, road design, and driver behavior.

The apparent intent of H.R. 13228 is to channel grants for State traffic safety programs through State highway departments, or some other agency in a State—

charged by its law with the responsibility for administering the State highway safety program or any part thereof.

There is a certain amount of ambiguity here, since the States usually have several departments administering their safety programs. May we suggest the office of the Governor, with an individual with authority designated as traffic safety program coordinator; that the money be channeled through this mechanism and distributed in this fashion in the States. In this way, the likelihood of an unbalanced State program is substantially lessened.

For the past 7 years the Insurance Institute for Highway Safety has worked with the States to establish and improve their traffic safety programs. We plan to continue this work.

I want you to know, Mr. Chairman, that the Insurance Institute for Highway Safety and the insurance industry stands ready to assist this committee, this Congress, or any other body in the legislative or executive branch in any capacity as adviser or whatever, to help carry out the important task which we all here are dedicated to.

Thank you very much for allowing me to appear, and I appreciate the opportunity to meet with you. I will be happy to return at your call. Thank you, Mr. Chairman.

(Mr. Brown's full statement follows:)

STATEMENT OF RUSSELL I. BROWN, PRESIDENT, INSURANCE INSTITUTE  
FOR HIGHWAY SAFETY

Mr. Chairman and members of the committee, my name is Russell I. Brown. I am President of the Insurance Institute for Highway Safety, which has its office here in Washington.

In my own behalf, and in behalf of the Insurance Institute, I want to express my appreciation to the Committee for this opportunity to appear. The problem you are dealing with is certainly one of the most important matters facing our country today.

First, let me give you some brief information about the Insurance Institute for Highway Safety. The Institute was established in 1959. It is supported by the American Insurance Association, the National Association of Independent Insurers, and the National Association of Automotive Mutual Insurance Companies. These associations represent more than 500 companies which write most of the nation's automobile insurance.

The Board of Governors of IIHS is composed of top-level executives from nine of the major companies in the field, along with the chief staff officers of the three sponsoring associations.

The insurance business, through the Institute has budgeted \$1.8 million for the current year. From 1959, the year the Institute was founded, through 1966, a total of \$12 million will have been budgeted. These contributions to traffic accident reduction are only those that are made through IIHS. They do not include the funds that are contributed by individual companies or the amount of time spent on traffic safety by their personnel.

The funds budgeted through IIHS provide assistance in three ways:

One. Through financial contributions to national traffic safety service organizations, for the purpose of providing technical services to state and local traffic

safety programs. We have given financial support to the American Bar Association's Traffic Court Program, the Northwestern University Traffic Institute, and the International Association of Chiefs of Police, to name only three.

Two. Through financial and technical assistance to state traffic safety programs. In 1965 the Institute supported 75 projects in 28 states. These projects ranged from a traffic court study in Georgia to the retraining of the Kentucky State Police.

Third. Through financial assistance to state citizen safety organizations. Last year 14 state safety councils were financially aided by the Institute, including those in California, New York, Wisconsin, Delaware, and South Carolina.

In addition to making financial contributions, the Institute's staff of traffic safety professionals provides technical advice and consultation. In our activities throughout the country we have developed a comprehensive understanding of the traffic safety needs in various states. As President of IIHS I personally have discussed specific traffic safety needs with more than half of the state Governors.

These needs vary from state to state. One state may have a sound system of driver education, but lack motor vehicle inspection. Another may have an excellent program of periodic examination of drivers, but an antiquated system of courts to try traffic offenders.

However, there is one need common to all states. This is the need for improved traffic records. The first priority of the federal government should be the development of a practical, compatible and useful traffic records system that can be adopted by all states. Several states have made progress in this area. California and Pennsylvania are two examples. These and other systems should be studied and the best characteristics should be incorporated in a model traffic records system that all states can use as a guide.

The following are several other generally recognized basic needs of the states in the field of traffic safety. No priority is intended by the order of presentation. Priority would depend on the situation in a given state.

*Periodic motor vehicle inspection.*—Currently 21 states and the District of Columbia have inspection programs. Owing to the present condition of traffic accident records no one can make an accurate estimate of the number or kind of accidents that are caused by vehicle failure or by lack of maintenance. However, the fact that those states have motor vehicle inspection programs report that nearly 50 percent of vehicles fail to pass the safety inspection requirements gives some idea of the value of such programs.

*Driver education.*—Every state has some type of driver education program. Of the approximately 3 million students eligible for driver education courses last year, 60 percent participated. Less than half (45 percent) of the eligible students took the qualifying course of 30 hours of classroom instruction and six hours of behind-the-wheel instruction.

One service our organization performs annually is a survey of driver education programs throughout the country. This is called the Driver Education Achievement program, and IIHS makes awards for outstanding programs.

There have been a lot of studies of the value of driver education—and probably more are needed. Let me say only this: It is the position of IIHS that driver education, like all education, is worthwhile and that it, based on all available evidence, accomplishes good results in accident prevention.

*Driver licensing and periodic reexamination.*—It is far too easy to get a driver's license in most of our states. Standards are for the most part minimal and little or no effort is made to determine if applicants are alcoholics, drug addicts or have a history of mental illness.

Only 15 states require some form of reexamination of licensed drivers. These vary both in period of time between reexaminations and type of examination. Only one state provides for a physical examination. The majority test visual ability. In the great majority of states an individual can obtain a license at age 16 and drive for 30 or 40 years without once having the state inquire if he has retained the physical ability to drive a car safely. Of more than 800,000 reexamined drivers in one state, approximately 40 percent had visual deficiencies requiring corrective lenses and one-half of these (approximately 160,000) had stamped on their licenses for the first time, "must wear corrective lenses."

*Uniform traffic laws.*—The constant movement of the American motoring public across state lines increases the need for uniform traffic laws. This uniformity need not encompass the entire vehicle code for each state, but could be limited



initially to the "Rules of the Road" provisions of such codes. These are the laws that directly affect the driver. Although a motorist may be operating his vehicle in accordance with the laws of his home state, he may be violating the laws of another state in which he is driving. This unfamiliarity with the law also affects the resident motorist who may be placed in jeopardy because of the violations of the non-resident.

*Traffic courts.*—The need for modern traffic court system is great. A number of states still have court systems more suited to the horse-and-buggy era. Respect for traffic laws will always be difficult to command as long as justice is dispensed in a barbershop or garage by a person entirely devoid of legal training. And this is happening today.

*Driver improvement.*—Programs designed to re-educate the licensed driver are an essential element of any well rounded traffic safety program.

*Training.*—There is an overriding need to establish training programs to provide qualified personnel to implement traffic safety programs in all levels of government.

These needs are not new. They have been expressed by the President's Committee for Traffic Safety, and all are included in the Action Program of that Committee. But for various reasons, down through the years, these needs have not been met. It is time to act.

The federal government can perform a valuable service in helping the states achieve meaningful traffic safety programs by providing leadership, guidance, and funds. However, this leadership can never be accomplished as long as the federal government's traffic safety activities remain fragmented among several departments and agencies.

Therefore, the Insurance Institute for Highway Safety supports legislation that will consolidate the traffic safety efforts of the federal government in a single department or agency as proposed by H.R. 13228 or H.R. 12548. This can be accomplished either through an independent agency within a Department or a separate bureau of a Department as long as one person is charged with the responsibility of coordinating the efforts of the federal government in cooperation with the states. Further, we believe that this person should report annually to the Congress on the progress of the traffic safety efforts and programs he has been charged to implement.

If a state accepts a federal grant for its traffic safety program, it is to be expected that such a program should be in accordance with uniform standards approved by the Secretary. This should include standards for motor vehicle inspection, driver licensing, use of uniform traffic control devices, and other necessary components of a balanced program.

It is our position that data compiled by recognized research institutions, although not conclusive, indicates that an improved vehicle would help reduce the number of traffic accidents, but, more particularly, the severity of those that do occur. We believe that Title I of H.R. 13228 is a constructive proposal to accomplish this.

In order to accomplish the objectives of this legislation the federal government should have a complete research facility for testing vehicles, road design, and driver behavior.

Here let me mention one serious problem in driver behavior, the drinking driver. There has been considerable basic research in this area and it is pretty well established that alcohol is involved in about 50 percent of the fatal traffic accidents that occur in this country. We know that, but what do we do about it? How do we apply those findings? Obvious answers are chemical testing laws, harsher punishments for violators, and a more intensive public education program. But are they sufficient? What more should we do? Our present programs are obviously inadequate to cope with the problem. This should be a high priority matter for the research programs requested in these bills.

There already exists an example of what federal leadership can do to encourage the states in traffic safety programs. The stepped-up program of highway spot improvement at high accident locations has already shown measurable benefits. The program should be expanded.

Owing to a lack of uniformity in state driver licensing laws and outright perjury by some applicants, licenses have been issued to persons in one state while their license was under suspension in another. The National Driver Register in the Bureau of Public Roads is a valuable source of information to state motor vehicle administrators on individuals whose licenses have been suspended for

certain serious violations. This voluntary cooperative federal-state program should be continued and expanded to include the names of operators whose licenses have been suspended or revoked for six months or more, regardless of the type of violation.

The financing of state safety programs raises questions, not only as to whether they are adequate, but also as to the control of these grants.

Until programs and state standards have been established, it will not be practical to try to estimate the amount of financing that will be needed. No realistic price tag on what a balanced program of traffic accident prevention will cost can be established until state program standards are adopted and the extent of state participation is determined.

The Secretary of Commerce has stated that the Administration's grant program is in the nature of "seed money" and it is not intended to match all funds spent by the states for traffic safety activities. Within this framework the funds proposed may be sufficient initially—as the states gear up their traffic safety programs. However, Congress should look frequently at the progress made under this legislation and review the financing of the programs. It may even be advisable to provide specifically in the legislation that a comprehensive cost study be made and submitted to the Congress after the first two years of this program.

The apparent intent in H.R. 13228 is to channel grants for state traffic safety programs through state highway departments, or some other agency in a state "charged by its laws with the responsibility for administering the State highway safety program, or any part thereof." There is a certain amount of ambiguity here since the states usually have several departments administering their safety programs. We believe some clarification is needed. May we suggest the Office of the Governor, with an individual designated as "traffic safety program coordinator," be the channel used to distribute grant money to the states. In that way, the likelihood of an unbalanced state program is lessened.

The thrust of virtually all the legislation now before the Congress is, as we see it, in the proper framework of federal-state cooperation. May the Insurance Institute suggest that the private sector, too, can play a significant role in achieving the goal we all seek. I am thinking now of the expertise and support available from private organizations.

The Bureau of Public Roads, acting in behalf of the Secretary of Commerce, recently invited the Insurance Institute for Highway Safety to submit recommendations for uniform standards for state traffic safety programs. We submitted our recommendations on April 12, 1966.

We have forwarded to the states and others interested in traffic safety information as to the availability of federal assistance programs that might be helpful to them in attaining traffic safety objectives.

For the past seven years the Insurance Institute for Highway Safety has worked with the states to establish and improve their traffic safety programs. We plan to continue this work. I want you to know, Mr. Chairman, that the Institute stands ready to assist this Committee, this Congress, or any other body in the legislative or executive branches of government to carry out the important task to which we are dedicated.

Once again, Mr. Chairman, I wish to congratulate you and the Committee members for your interest in this important field. I thank you for allowing me to appear and present the views of our organization.

(The following reply to 28 questions propounded by Congressman Mackay, and recommendations for Federal traffic safety standards, were submitted later by the Insurance Institute for Highway Safety:)

INSURANCE INSTITUTE FOR HIGHWAY SAFETY,  
Washington, D.C., May 20, 1966.

HON. JAMES A. MACKAY,  
Congress of the United States,  
House of Representatives, Washington, D.C.

DEAR REPRESENTATIVE MACKAY: This is in reference to your letter of May 13 requesting the view of the Insurance Institute for Highway Safety on the twenty-eight questions posed in your April 22 workbook on traffic safety issues before Congress.



A number of these questions were answered in my testimony before the House Interstate and Foreign Commerce Committee. However, in order to provide you with answers to all of your questions the following is submitted:

## GENERAL PROVISIONS

1. Should an agency be specified in legislation with explicit responsibility for a uniform and safe traffic environment?

Answer—Yes.

2. Should an administrator be appointed by President?

Answer—Yes.

3. Should a periodic consumer traffic safety bulletin for motorists be published on a regular basis?

Answer—Yes.

4. Should Secretary be required to submit comprehensive annual report to President and Congress?

Answer—Yes.

5. What should be the source of funds for this bill?

Answer—No preference to Highway Trust Fund or general treasury. However, a study should be made to determine how much of highway user funds should be allocated to safety. The highway user is not only entitled to better roads, but also to protection while he is driving on such roads.

## TITLE I—MOTOR VEHICLE SAFETY STANDARDS

1. Should all motor vehicles, including trucks, be included?

Answer—Yes.

2. Should setting of performance standards for manufacture of cars be mandatory?

Answer—Secretary should have authority to set performance standards.

3. How soon should standards be set?

Answer—As soon as is reasonably possible.

4. How soon should the issued standards be effective?

Answer—Within a reasonable time to be set by the Secretary.

5. Should existing informal industry standards be formalized?

Answer—Yes.

6. Should standard setting function of GSA for federal cars be transferred to new agency?

Answer—Yes.

7. Should there be sanctions on the manufacturers for noncompliance?

Answer—Yes.

8. Should cars be federally certified if they comply with federal standards?

Answer—Yes.

9. Should manufacturers be required to notify consumers or Government of defects and fix defects?

Answer—Yes.

10. Should the agency have specific authority to sponsor construction of test car?

Answer—Yes.

11. Should the funds for this title be increased?

Answer—Not qualified to determine cost of this program.

## TITLE II—TRAFFIC ACCIDENT AND INJURY RESEARCH AND TEST FACILITY

1. Should the construction and operation of facility or facilities be made mandatory?

Answer—Yes.

2. Should the funds for this title be increased?

Answer—Not qualified to determine cost of this program.

## TITLE III—HIGHWAY SAFETY

1. Should criteria for a qualified state traffic safety plan be defined?

Answer—Yes. (Attached is a copy of suggested standards which could be used as criteria. These were submitted by the Insurance Institute for Highway Safety to the Bureau of Public Roads, at the Bureau's request, on April 12, 1966.)

2. Should specific projects for state programs be required in legislation?

Answer—Certain areas should be mentioned, such as periodic motor vehicle inspection and driver re-examination. However, details should be left to Secretary who could amend them, based on the results of future research findings.

3. What method of setting and administering standards for state programs should be adopted?

Answer—Secretary after consultation with an advisory council consisting of representatives of states, local government, and industry. States must meet minimum standards.

4. What should the definition of "State Highway Department" be?

Answer—The state Governor or agency appointed by him.

5. What formula should be used for the distribution of funds to states?

Answer—The 75%-25% basis appears reasonable. Secretary should retain some discretionary funds such as 25% to inaugurate new programs.

6. Should funds for State grants under this title be increased?

Answer—Yes. However, funds for first two years may be adequate, but a study should be made to determine full cost and which governmental bodies should bear what proportion of the cost.

7. Should research, development, and testing by federal government be made mandatory?

Answer—Yes.

8. Should the funds for federal research under this title be increased?

Answer—Initial funds seem adequate, but a study should be made to determine research needs and then funds should be appropriated to cover such needs.

9. Should the collection, interpretation, and publication of data statistics, and other information on traffic safety be specified in law?

Answer—Yes.

10. Should federal accident reports be made public?

Answer—Only research results should be made public. Present state policies regarding disclosure of accident investigations should be followed. State reporting systems should be upgraded.

Due to the impact this proposed legislation will have on governmental bodies, business and industry it would appear desirable to have an Advisory Council representing each of these for each Title of the Bill.

If I can be of any further assistance to you, please do not hesitate to call upon me.

Respectfully,

RUSSELL I. BROWN, *President.*

## INSURANCE INSTITUTE FOR HIGHWAY SAFETY RECOMMENDATIONS FOR FEDERAL TRAFFIC SAFETY STANDARDS

### I. TRAFFIC ACCIDENT RECORDS

#### A. Records Systems

1. Each state, every municipality exceeding 25,000 population, and every county exceeding 50,000 population, shall establish a central traffic accident records system responsible for collecting, processing, and analyzing traffic accident reports.

2. In smaller jurisdictions (exempted by No. 1, above) such information would be collected, processed, analyzed, and returned, to the jurisdictions involved, by the state.

3. All local accident records systems shall be supported in part by funds or services provided by the state.

4. All accident reporting forms submitted by drivers, police, and others shall be standardized and a single uniform format be required for each form as determined by the Traffic Accident Data Project Committee; with forms being furnished by the state. Forms, summaries, and codes used by states shall be standardized to permit inter-communication between systems.

5. States shall be required to implement a milepost marking system, at intervals of one tenth of a mile, on all interstate and primary (A, B, C,) highway systems. Use of milepost location indications shall be required on all official reports of accidents, as a means of pinpointing accident locations.

6. There shall be established a national reporting minimum standard for all motor vehicle accidents, (i.e., amount of property damage, presence of injury, or other criteria).



7. There shall be required the reporting by police, or other agency, of standardized types of information that are readily available on all accidents within reporting limits.

8. A thorough investigation by competently trained investigators or by teams of trained investigators shall be made of types or numbers of accidents on a selective basis.

9. Special studies of traffic accident causes shall be conducted on a continuous basis.

10. One or more institutions of higher learning in each state shall provide educational opportunities to persons planning to engage in the collecting, processing, and analyzing of traffic accident data.

11. All persons engaged in the gathering, processing and analyzing of traffic accident data shall be required to complete a minimum 40 hours of in-service training annually.

12. There shall be established a data processing capability in order that a driver's total accident and traffic arrest record may be readily available for input.

## II. DRIVER PERFORMANCE

### A. Beginning Education and Training of Drivers

#### Organization

1. All applicants for licenses to drive shall have completed and passed a state-approved driver education course whose standards meet or exceed those of the National Conference on Driver Education. These standards shall include:

a) The high school driver and traffic safety education course shall extend over a full semester (90 hours) of which six hours are in supervised laboratory instruction.

b) The course shall be taught by a certified instructor.

2. Each state shall make high school driver education courses available to every youth under 21 desiring to enroll, either as a part-time or a full-time student.

3. Each state shall provide adequate funds to local school districts to insure availability of driver education, and to state education agencies for the administration and supervision of such programs at the state level.

#### Supervision (State Level)

4. Each state shall have, in the state education agency, personnel assigned full-time to the supervision and administration of the state's driver education program.

5. Each state shall have a printed driver education guide, in which policy is defined, standards are listed, and rules and regulations are explained.

6. Each state shall have a driver education instructional manual containing suggestions and aids for the classroom and laboratory phases of instruction.

#### Supervision (Local Level)

7. Each local school district shall have one person assigned responsibility for supervising, improving, and extending all phases of safety education.

#### Teacher Certification

8. Each state shall have certification requirements that meet the minimum recommendations of the National Conference on Driver Education—completion of a minor in safety education.

#### Teacher Preparation

9. Each state shall offer teacher preparation courses that meet the hours and courses required for teacher certification.

#### Pupil Transportation

10. Each state shall require various school districts to meet minimum practices for the selection, instruction, and supervision of school bus drivers, as recommended by the National Conference on School Transportation.

11. Each state shall enact for school buses, minimum standards that meet standards recommended by the National Conference on School Transportation.

### B. Driver Examination

1. Each state shall require substantial preparation prior to licensing of all applicants.

2. Each state shall publish a comprehensive driver handbook containing extracts of the vehicle code and safe driving practices; and a handbook on what a driver must know to operate a motor vehicle safely.

3. Each state shall adopt the minimum standards for driver examinations, as recommended by the American Association of Motor Vehicle Administration in the manual, *Examining Applicants for Driver's Licenses*.

4. Each state shall adopt and use (at least) the minimum standards as provided for in Chapter 6, "Operators' and Chauffeurs' Licenses," of the *Uniform Vehicle Code*.

5. Licenses in each state shall be classified by types of vehicle, with separate examinations for each in the appropriate type of vehicle he will operate.

6. All initial and renewal applications for licenses shall be screened through the National Driver Register, by each state.

7. The initial driver license examination required by each state shall include:

- a) Vision screening, with referrals as needed.
- b) Physical screening of all initial and renewal license applicants.
- c) Hearing.
- d) Road signs and signals.
- e) A written knowledge test on traffic laws and safe driving practices.
- f) A road test of each applicant's driving ability, including but not limited to general control and manipulation of the vehicle, parking, observance of traffic control devices and laws, turning, and backing.

8. Driver license examiners shall spend adequate time with each applicant to ensure the applicant's readiness to be licensed.

9. Adequate records shall be maintained for each applicant examined.

10. A driver licensed in another state shall be requested to surrender his valid driver license certificate prior to being licensed in his new state of residence.

11. Learner permits shall be provided for all new drivers prior to obtaining the regular operator's license in each state.

12. All drivers under 18 years of age in each state shall be required to complete an approved course in driver education prior to obtaining the learner permit.

13. Each state licensing agency shall have a driver examiner manual to guide examiners in the performance of their duties.

14. Qualified examiner personnel shall be selected by each state through a merit or civil service system with technically trained individuals for key or supervisory positions.

15. All aspects of driver selection and control shall be located under one administrative head and within one division of a department in each state.

16. Adequate facilities and professional instruction shall exist within each state for training new examiner personnel, as well as for providing in-service training. A minimum of 160 hours' training shall be provided recruit personnel and a minimum of 40 hours in-service training shall be given annually.

17. Each state shall provide university-level training for its chief driver license examiners and supervisory personnel.

18. Licenses issued by a state to persons under 21 years shall be marked "probationary" and subject to immediate remedial action following any adverse traffic involvement.

19. Driver licenses shall be issued only by a driver's recognized state of residence.

20. Each state shall require parental consent and responsibility when licensing minors to drive.

### C. Suspension or revocation of driver licenses

1. Each state shall provide mandatory revocation (withdrawal) of a license or privilege by the central issuing authority when the licensee has been convicted of certain specified acts.

2. Each state shall maintain discretionary suspension of a license or privilege by the department when the licensee's driving record warrants such action.



3. Each state shall participate in and submit driver data on revocations and suspensions to the National Driver Register.

#### D. *Improvement of Licensed Drivers*

1. Each state shall adopt a comprehensive driver improvement program to educate all licensed drivers, with special emphasis on the problem driver and driver errors.

2. Each state shall adopt the provisions contained in the *Driver License Administrator's Guide to Driver Improvement*, published by the American Association of Motor Vehicle Administrators.

3. Each state shall employ qualified driver improvement analysts, selected through a merit or civil service system.

4. Each state shall provide adequate facilities for training driver improvement personnel; specialized training shall be made available.

5. Each state shall establish a point system that conforms to a uniform standard, in order to detect potential problem drivers early.

6. Each state shall make use of the following driver improvement techniques to rehabilitate drivers:

- a) Warning or advisory letters
- b) Personal interview
- c) Referral to clinic or group meeting
- d) Probation
- e) Referral to driver improvement school
- f) Re-examination
- g) Suspension

7. Each state shall require re-examination upon license renewal; such an examination to include all those items listed for the initial license, a more thorough written knowledge test, and a more comprehensive driving test.

8. Driver improvement schools shall be established in each state through its educational department, offering a minimum of eight hours per course for all licensed drivers. Each licensed driver shall show evidence of satisfactory completion of this course within each 10 years to be eligible for issuance of a renewal license.

9. Each state shall provide specialized remedial-type driver improvement schools, requiring 16 hours of study, for re-qualifying drivers after suspension.

### III. VEHICLE SAFETY

#### A. *Motor Vehicle Design, Equipment, and Performance*

1. All motor vehicles of domestic or foreign manufacture shall meet minimum standards of performance and safety equipment approved by the Secretary of Commerce (Transportation). States shall, in the case of commercial vehicles, require ICC standards be met by those engaged in intrastate commerce, as well as interstate commerce (currently the only vehicles affected).

2. Proved safety devices shall be required as standard equipment on all motor vehicles, particularly: seat belts (or shoulder harnesses), windshield washers, rear window wipers and defrosters, dual braking systems, outside rear view mirrors, padded dashboards, and such others as the Secretary of Commerce (Transportation) shall determine.

#### B. *Vehicle Registration*

1. Each state shall adopt provisions contained in Chapters 3 and 4 of the *Uniform Vehicle Code*, relative to motor vehicle registration, certificate of title, and auto theft.

2. A manufacturer's statement of origin for a new vehicle shall be required as evidence of ownership for titling purposes.

3. Motor vehicles shall be registered by identification number.

4. Identification numbers shall be inspected as part of the registration process.

5. The description of commercial-type vehicles shall be based on the standard body classifications of the U.S. Bureau of Public Roads and American Association of Motor Vehicle Administrators.

6. Each state shall adopt a declared gross weight as the basis for registering commercial motor vehicles. Legal gross weights shall be shown on registration certificates.

7. Each state shall issue two license plates to each registered motor vehicle.

8. Registration plates shall be standard in respect to dimension and hole-spacing—6" x 12" in size.

9. License plates for motorcycles, motor scooters, luggage trailers, and motor boat trailers plates shall be 4" x 7" in size.

10. Reflectorized license plates shall be issued.

11. All vehicle operators of all vehicles shall carry the vehicle's certificate of registration.

12. Multiple titling of vehicles operating in interstate commerce shall be discouraged, and single registrations under reciprocal agreements encouraged.

13. Certificates of title, surrendered as evidence of ownership, shall be returned to state of issuance; non-title states shall be required to surrender certificates of title by applicants from title issuing states.

14. A uniform registration numbering system shall be developed, adopted, and used by all states.

15. Regulatory identification tags shall be of standard size—8" x 4."

16. No sticker shall be permitted on any windshield, except one vehicle inspection sticker no larger than 9 square inches.

17. Registration identification cards shall be limited to 3" x 4" in size.

#### C. Motor Vehicle Inspection

1. Each state shall establish and conduct a comprehensive periodic motor vehicle inspection program that conforms to American Standard for Motor Vehicle Inspection, D7.

2. Every motor vehicle registered in the state shall submit to these inspections at least twice each year at six-month intervals.

3. The following items shall be inspected:

- a) Brakes
- b) Lights and electrical system
- c) Steering and wheel alignment
- d) Tires and wheels
- e) Exhaust system
- f) Windshield and other glass
- g) Windshield wiper
- h) Horn.

4. On commercial vehicles the following additional items shall be inspected:

- a) Reflectors
- b) Hydraulic brake systems
- c) Fifth wheel.

5. The owner of any vehicle failing to meet the requirements as established by the state shall be required to make the necessary repairs to pass the inspection or immediately remove the vehicle from the public highways.

6. The state official charged with the responsibility of conducting the state motor vehicle inspection program shall prepare and publish the rules relative to the administration of the program and shall establish the procedures to be followed.

7. The state shall arrange for a sufficient number of official inspection stations to conduct the inspections without undue inconvenience to motor vehicle owners.

8. Each motor vehicle inspection station, upon meeting the established requirements, shall become an official representative of the state and will be bound by the rules and regulations set by the state.

9. The state shall arrange for an adequate number of enforcement officers to supervise the official inspections and work with other law enforcement officers in policing the program.

10. The cost of inspections shall be established by the state, but in no case shall exceed \$2.50 for a passenger car and \$5.00 for a commercial vehicle.

#### IV. HIGHWAY DESIGN AND MAINTENANCE

##### A. Construction

1. Construction of all new highways, and reconstruction of existing facilities, shall conform to design standards and specifications promulgated by appropriate representatives of government, professional, and industry groups. Such standards already exist, but should be amended as necessary to provide improvements in design.

2. Installation of flared and anchored guard railing shall be required on all new construction, and as replacement equipment on existing roadways, where necessary for safety and driver protection.

3. Construction schedules on new facilities shall be adhered to so that highways are not opened to the public until all construction activity is completed according to approved specifications.



## B. Maintenance

1. Physical maintenance of all highways shall be programmed on the basis of factual data gathered from monthly surveillance, and personal field inspections of the entire road system in each jurisdiction.

## V. TRAFFIC CONTROL

### A. Traffic Engineering

1. A division of traffic engineering shall be a part of each state's state highway department, and be equivalent in status to the construction, maintenance and/or design divisions. It shall be adequately staffed with competent engineering personnel at headquarters and district levels, and shall have authority for highway studies, traffic operations, highway accident reduction, all traffic control devices (approval, installation, maintenance, and procurement) and design of highway features related to each of these component areas.

2. The personnel qualifications of the division of traffic engineering at any level of government shall meet the standards established by the Institute of Traffic Engineers.

3. A traffic engineering unit shall be part of every county or city government where approved population criteria have been met (e.g., cities over 50,000 population). This function shall be in the highway, street, or public works department of city or county government. Staffing, authority and responsibility shall follow pattern of its state counterpart.

4. Traffic control devices on all state, city and county streets and highways shall meet the standards set forth in the *Manual on Uniform Traffic Control Devices*, and in comparable publications with national status. Sale or use of devices that do not conform to approved standards shall be prohibited.

5. State traffic engineering divisions shall provide guidance, counsel and assistance to city and county governments, upon request; and shall encourage close liaison among all jurisdictions in traffic matters. Joint efforts with other disciplines, at state and local level, concerned with traffic operations, safety, surveillance, and control, are essential to efficient highway management.

6. Educational and training opportunities shall be offered to persons in state and local government who are responsible for traffic engineering functions, or whose work brings them in frequent professional contact with traffic engineers.

7. Traffic engineering divisions at state and local levels shall have authority to prescribe and enforce standards and specifications for highway construction and maintenance safety devices, particularly traffic signs, barricades, control signals, pavement markings, and detour design and/or location.

8. Inspection of new highways and reconstructed sections of existing facilities shall be made, prior to opening to public use, to determine adequacy of traffic control device design, location and physical condition. New freeways and other high-volume, high-type limited-access highways shall not be opened to the public until such inspection has determined that traffic control devices are adequately and completely installed.

9. It shall be the responsibility of the state traffic engineering division to install and maintain a milepost system on the state highway network. In addition, a comparable milepost program shall be initiated on county roads and city streets. Both systems are for the primary purpose of locating accidents accurately, thus providing a uniform basis for more efficient traffic accident reduction activities by engineering and enforcement agencies.

### B. Legislation<sup>1</sup>

1. Each state shall adopt the Accident and Accident Reports and the Rules of the Road provisions of the *Uniform Vehicle Code*.

2. Each state shall adopt the *Model Traffic Ordinance*, which municipalities shall incorporate by reference.

3. Each state shall adopt the driver licensing provisions of the *Uniform Vehicle Code*.

<sup>1</sup> State legal standards, as they relate to state highway safety programs, shall meet or surpass the standards of the *Uniform Vehicle Code* and the *Model Traffic Ordinance*. As to state legal provisions directly affecting the movement of traffic they shall not only meet or surpass the standards of the *Uniform Vehicle Code*, but they shall be in reasonable conformity with those standards. In other words, the law plays two roles. The first role serves as a substructure for accident records systems, driver licensing, registrations, anti-theft, traffic engineering, the use of the manual on uniform traffic control devices, police supervision and enforcement, mechanical inspection programs, etc. The second establishes rules directly affecting the orderly movement of traffic.

4. Each state shall make a comparative study of its motor vehicle traffic laws with the *Uniform Vehicle Code*; and keep such comparative study current in order that uniformity of such laws may be achieved in an orderly manner.

5. Each state shall adopt a manual on uniform traffic control devices that conforms to the manual prepared under the aegis of the *National Joint Committee on Uniform Traffic Control Devices*. Each state shall conduct an inventory of traffic signs, signals, and pavement markings on all streets and highways (including county roads) in order to achieve uniformity on a planned basis.

#### C. Courts

1. All state and local courts having jurisdiction in traffic cases shall be presided over by salaried judges who are legally trained and admitted to practice law in their state.

2. All state and local courts having jurisdiction in traffic cases shall adopt the Model Rules of Procedure in Traffic Cases as endorsed by the American Bar Association.

#### D. Police Traffic Supervision

1. The state traffic enforcement agency shall:

a) Be at a department level, equal in status to the state motor vehicle department and/or the state department of highways.

b) Provide guidance and counsel to city and county police organizations within the state in appropriate areas of training and operations.

c) Adopt and use policy and operations manuals, in printed form; such manuals shall be distributed to all affected personnel.

d) Provide adequate training at all levels, to qualify personnel to carry out the mission of the organization. In-service traffic training for sworn personnel shall not be less than 40 hours of classroom instruction every two years.

2. Each state traffic enforcement agency shall:

a) Take corrective action against traffic violators in sufficient quantity and quality to encourage voluntary public compliance with traffic laws.

b) Establish and maintain a suitable ratio between the number of convictions for moving traffic violations and the number of motor vehicle accidents producing injuries and fatalities.

c) Conduct point traffic control (coordinated direction of traffic by police officers) when and where warranted.

d) Provide information and appropriate services to motorists and pedestrians.

e) Adopt the *Uniform Traffic Citation and Complaint*, recommended by the American Bar Association.

### VI. SURVEILLANCE OF TRAFFIC

#### A. Detecting and Correcting High or Potentially High Accident Locations by Utilizing:

##### 1. Traffic Engineering:

a) The traffic engineering division within each state shall have professionally qualified engineers assigned to follow-up investigations of all serious traffic accidents, for the purpose of ascertaining what, if any, engineering remedial action is required. This standard shall apply to municipalities and counties with traffic engineering divisions.

b) Each traffic engineering division shall maintain, or have immediately available to it, statistical data relating to traffic accidents that will reveal the need for corrective measures, and guide such action.

##### 2. Police Traffic Supervision:

a) Records and reports shall be kept, based on direct observation by police and accident experience, to reveal high accident locations, and situations that have a high-accident potential.

b) Police shall stress the accuracy of reporting and precise location of traffic accidents. This shall be directly related to some types of a state-wide all-road milepost system.

c) Police policy shall cause personnel to be aware of causative factors as related to accident locations, and to be alert for physical and operational clues relating to potential accident situations.

d) Police shall take corrective action through:



- (1) Application of approved selective enforcement practices based on time, place, and violation factors related to accidents.
- (2) Appropriate direction and control of traffic.
- (3) Public education and public relations.
- (4) Close cooperation with the traffic engineering authority, by utilizing an established means of continuous communication.

### 3. *Traffic Records Systems:*

- a) A total comprehensive traffic records system (Central Driver Records and Registration file) shall be established. It shall consist of fully integrated records, so as to provide the complete and immediate information on accident locations as well as the driving history of individual drivers, including registration data.
- b) The Central Driver Record files shall be available on a 24-hour basis with instantaneous retrieval of total driver and vehicle data for engineering, enforcement, and educational purposes.
- c) An intercommunication system, such as radio, teletype, computer, etc., shall exist between states and within counties and municipalities within each state for the exchange of driver, vehicle, and highway data.

### 4. *Construction and Maintenance*

- a) Each state highway department shall take immediate steps to correct any physical highway condition that may be contributing to motor vehicle accidents.
- b) It shall be the policy of each highway department that all personnel—administrative, construction, and maintenance—shall be constantly on the alert for highway accident-causing conditions that might be subject to engineering correction.
- c) Each highway department shall maintain constant communication with the state motor vehicle department, the law enforcement branch, and any other state or local agency that could contribute to the identification of high accident locations, or of potentially high accident locations.
- d) Each highway department shall maintain, or have immediately available to it, traffic accident information in such form that it may be used to detect high accident locations and suggest the proper corrective action.

### 5. *Laws*

- a) Each state shall adopt the accident reporting provisions of the *Uniform Vehicle Code*.

### 6. *Public Education*

- a) Each state, within the department responsible for administering the state's traffic safety program, shall establish a Traffic Safety Public Education (or Public Information) Office.
- b) This office shall have at least one full-time professional employee whose primary task is to disseminate or have disseminated through the mass media all information the public should know about the state's traffic safety program.
- c) Each state shall budget adequate funds (at least \$30,000) for this purpose annually; the budget to include salaries. (An additional \$30,000 shall be added to the minimum for each 500 population).
- d) The Traffic Safety Public Education Office shall be responsible for a coordinated traffic safety education program. Each department in the state government shall be encouraged to engage in public education work. However, the Traffic Safety Public Education Office shall oversee and coordinate all such programs.
- e) The Public Education Office shall engage in public information activities on its own initiative, and shall be authorized to enter into a contract with any organization capable of carrying out the mission of the office.
- f) Each state agency having responsibility for one or more aspects of traffic control or accident prevention shall have a director of public information, subordinate to the State Traffic Safety Public Education Office.
- g) Each such director of public information shall:
  - (1) Deal individually and collectively with all requests from communications media and individuals seeking public information about any phase of the work with which he is associated.
  - (2) Seek actively to find outlets in mass communications media for news releases, articles and spoken communications about the phase of traffic safety or related work for which he has public information responsibilities.

(3) Impress upon his associates in the technical side of the work the importance of a constant open line for communications, between his agency and the public and with other agencies having a relation to the work of traffic safety.

(4) Assist the executive head of the division or department with which he is associated in making periodic appraisals of the public understanding of the operations or the reason for the existence of the phase of work with which he is associated and how it fits into the total traffic accident prevention picture.

(5) Assist such executive head in arriving at informed estimates of public information budget and staff requirements sufficient to keep this phase of the total workload within reasonable levels of accomplishment in relation to the total program

(6) Be excused from assisting in legislative consulting work between his agency and the law-making branch. Likewise, he should be excused from promotional activities which might be interpreted by the public as "self-serving" or any other activity that might tend to mar his image as a source of authentic public information.

#### VII. EMERGENCY SERVICES

##### A. Emergency Care and Transportation

1. Each state shall adopt the national accreditation system to be established for determining minimum standards for personnel, equipment, and vehicles involved in emergency care and transportation of persons injured in motor vehicle accidents.

2. Criteria shall be developed in each state for determining:

a) What constitutes a good ambulance service.

b) What constitutes an adequately equipped hospital emergency care facility.

3. Each state shall establish on a regional basis central dispatch stations to receive emergency care calls and dispatch appropriate service, personnel and equipment.

4. Each state shall provide a readily available means of communication, so emergency services can be obtained without delay (i.e. roadway telephones, radio patrols, electronic aids).

5. Each state shall adopt the national symbol of emergency medical identification to be developed to denote the need for special medical attention, (i.e., Medic Alert).

6. Each state shall adopt the national symbol for identifying emergency medical facilities, to be developed. Highway emergency medical facility locations shall be identified accordingly. This symbol shall correspond to the one described in item No. 5.

7. Each state shall require that all ambulance drivers and attendants complete a minimum course of instruction covering driving, advanced first-aid, and the use of emergency equipment available to them.

8. Efforts shall be made by each state to train as many citizens as possible in first-aid. These shall include public employees, commercial drivers, and school teachers.

9. Each state shall enact laws to protect physicians and others who provide first aid treatment under emergency conditions.

#### VII. MANPOWER AND TRAINING

##### A. Planning

1. Advance planning by each state for dealing with its traffic accident problem shall include the development of a reservoir of trained personnel in each of the disciplines involved, including:

a) Data processing systems specialists, statisticians, and statistical analysts.

b) Traffic safety and driver education teachers, as well as teacher preparation college faculty members versed in such subjects.

c) Driver licensing administrators and examiners.

d) Driver improvement program (point-systems) administrators.

e) Automotive engineers.



- f) Motor vehicle registration and titling specialists.
- g) Motor vehicle inspection specialists.
- h) Highway design, construction, and maintenance engineers.
- i) Traffic engineers.
- j) Police traffic administrators and traffic policemen.
- k) Public education and public information specialists.
- l) Ambulance drivers and attendants.

#### B. Educational Opportunities

1. In the appropriate areas (listed above) each state tax-supported educational institution shall offer undergraduate and graduate courses.

2. In those disciplines where it would be more appropriate to offer short-course-type training, such training shall be offered by tax-supported educational institutions to employees of state, county, and municipal traffic agencies, with part of the cost thereof being borne by the state.

3. State, county, and municipal traffic agencies shall offer intern-type training to recent college graduates desiring to enter one of the vocations involved.

4. Each state shall provide, in the budgets of state departments concerned with traffic, funds that may be used by state and local traffic agency employees desiring to obtain additional education in traffic-related disciplines not available to them within the state.

The CHAIRMAN. The next gentleman on the list is so important that if he could wait until after the next witness I would rather do so. I refer to the executive vice president of the National Tire Dealers & Retreaders Association.

Mr. Marsh, can you wait until later in the day to testify?

Is Mr. Marsh present?

Apparently he is not here.

Is Mr. James Hall present?

Mr. Hall, can you, under the rules I have stipulated, make your remarks and stand by for questioning later?

Mr. HALL. Yes, sir; we can.

The CHAIRMAN. I understand you are a constituent of one of our distinguished colleagues on this committee, Mr. Mackay.

Mr. Mackay, have you any remarks you want to say about this young man?

Mr. MACKAY. Mr. Chairman and members of the committee, Mr. Hall is a real leader in the independent garage business in Georgia. As the questioning has already brought out, a large part of this problem has to do with what happens to a car after it gets into the hands of the owner.

I just would state that we could have no more qualified person, I think, in the country to speak to this than Mr. Hall. I welcome him here.

#### STATEMENT OF JAMES W. HALL, JR., COORDINATOR FOR INDEPENDENT GARAGE OWNERS OF GEORGIA, INC., ATLANTA, GA.; AND GEORGE H. BYRD, MACON, GA.

Mr. HALL. Thank you, Mr. Mackay.

Mr. Chairman, distinguished and honorable members of the Interstate and Foreign Commerce Committee, it is an honor and privilege for Mr. George Byrd and me to represent the Independent Garage Owners of Georgia in the interest of traffic safety legislation. We

thank you for this opportunity to be of service to the motoring and automobile-owning public.

Our testimony will not be repetitive, nor will it be irrelevant to the grave issues being studied. We are here in the interest of protecting the lives of 50,000 motoring Americans this year. It is not our purpose to point the finger of shame for what has not been done in the past. Our industry is a part of that past.

We are here to share acquired knowledge and experience with you who are in session to determine if positive action will be taken this session to help those 50,000 who are the unknown doomed.

We in the automobile repair business are charged by the motoring public with the responsibility of keeping America's cars functioning safely and efficiently long after the manufacturer and dealer have lost contact. In discharging this responsibility, we learn the failures and successes of automobile components. Garagemen know from experience that significant improvement can be effected through unbiased research and development.

The beginning, Mr. Chairman, cannot be at any time earlier than this. But, without courageous action and definitive legislation, this beginning toward a positive solution to this extremely serious problem can be 40 more years in the future.

Mr. Chairman, my name is James W. Hall, Jr. I am board chairman and treasurer of "Red" Ivey's Automotive Service, located in Atlanta, Ga. My company has been a leading garage since 1932. In addition to company duties, I am the administrator of a statewide registered apprentice mechanic's training program.

Under the provisions of this program, apprentices go to night school for theory, and work as a garage employee in an on-the-job training status during the day. Other qualifications I possess are in the field of statistical systems design and analysis, market research, and sales management.

My testimony will deal basically with Mr. Mackay's proposal for a national administrator, a center for design certification, grants for basic research, and the establishment of an accurate and meaningful statistical reporting system.

The CHAIRMAN. Mr. Hall, I would like to make this announcement: that the chairman and some members of the committee are due to appear before the Rules Committee in 5 minutes. We will have to go, but we will be back. I do hope you will be available for questioning later if the members of this committee want you to be. I want to thank you for coming to testify.

Mr. HALL. We will remain here through the day to await your call.

The CHAIRMAN. I just wanted to explain why some members of the committee do have to leave at this time.

Mr. HALL. Thank you.

1. Mr. Chairman, without an administrative head whose sole function is identification of all contributory problems, development of successful solutions, and maintenance of a successful liaison system for communicating with local legislative and traffic officials, any program will be a failure.



With the backup support of tested and proven information provided for the administrator in Mr. Mackay's total proposal, this office will be armed with sufficient weapons to assure close cooperation from all segments of the industry, and certainly with local officials.

I know firsthand the effect of public sentiment and unqualifiedly state that with Mr. Mackay's entire program, enforcement legislation calling for fines and penalties will not be necessary. Motorists are almost universally unhappy about their cars and are looking for informed guidance. If this can be provided without the threat of Federal penalties, success will be assured.

2. Design certification is certainly not a new phenomena to American industry. The manufacturers of gas appliances and electrical equipment have lived with this for many years in the form of Underwriters Laboratories and the American Gas Association, to name but two. There is a very serious need for this in the systems of brakes, suspension, steering, and tires as among others that make up the whole automobile.

I will cite only one example of the many we encounter monthly. I have this example with me, which can be shown later. It is a blatant example of poor design and virtually no quality control at the manufacturer's level. Not the automobile manufacturer, I might state, but a component manufacturer. This, admittedly, is one of the worst.

A young mother and her baby came perilously close to serious injury or death because of this design failure. The car involved is a 1964 model compact which had only 12,393 miles at the time of occurrence 6 weeks ago. The driver, on approaching a stop sign, applied the brakes in a normal manner. On application, she heard a loud popping noise and experienced brake failure. The street she was on dead-ended into a heavily traveled artery. As her car violated the stop sign she was miraculously missed by two cars on the cross street.

I later drove the car to my place of business. We pulled the wheels and found the right rear brake drum had separated, the drum split and sheared the linings off the brake shoes. I have the brake drum with me to show you a blatant example of extremely poor design and quality control. On the slightest examination, it can be seen that the weld failed to fuse the backing plate to the drum.

The basic design of this type drum is an indictment. There is no overlapping of the components to provide adequate structural strength to withstand the great stresses occurring in operation. With this design, no margin for error is allowed.

Design certification of automobiles of necessity dictates design certification of components.

3. Basic research is needed in all phases of the repair industry. To effectively analyze and repair the modern automobile requires data not now available. The modern automobile is one of the most sophisticated machines ever produced. The continued growth of America's prosperity demands that answers be found so that Americans can gain full benefit of their cars at little or no hazard to themselves and at less operational cost. Experience dictates that more adequate training methods be found through research. Experience further dictates that a basic program of mechanics licensing be initiated.

Basic research will verify that many items other than the automobile or mechanical failures are involved in traffic tragedy. Research is needed to properly identify all contributing factors and placing each in its proper perspective.

4. One of the most important provisions of Mr. Mackay's proposed legislation is that calling for an accurate, timely, and adequate system of reporting accidents. The required investigative procedures and trained personnel will contribute immeasurably to corrective action.

Reporting procedures can be developed that will centralize a wealth of useful knowledge. The system need not be oppressively time consuming nor confusing. The repair facilities of the entire Nation can be utilized for accurate fact gathering.

We will be glad to cooperate in this great step forward, Mr. Chairman.

If I have a couple of moments, I would like to present the testimony of Mr. George H. Byrd:

Owner and operator of Byrd's Garage in Macon, Georgia, specializing in front end alignment and brake service.

Qualifications: Specialized alignment and brake service for 36 years. Member of Moog Manufacturing Company advisory council on alignment and safety for six years. Members of the recently organized Georgia Safety Council. Operator of Georgia Safety Inspection Station #337 for two years.

Having been in the service field of automobiles since the time (1929) of the two-wheel brakes and I-beam axle, I have seen many changes in their construction design, and the materials from which they are made. During the early stages of the automobile, when speed seldom exceeded 50 miles per hour, and there were few cars on the roads, the chances of the driver losing control were not as great as today. Since I am primarily interested in brakes and alignment as they pertain to safe driving, that is what I should like to discuss.

First, let us look at the brake mechanism of the modern car. Here we have an object moving at the rate of from 50 to 100 miles per hour. The brakes must be capable of stopping the vehicle under all kinds of conditions, from downtown traffic where continuous application of the brakes develop much heat on the brake drums, to freeway travel where panic stopping may become necessary any moment. There is no other part of the automobile that must take the beating that the drum, lining and other parts of the braking system must take. The drum, wheel cylinder assembly, master cylinder, brake fluid, and the lining must be not just good. They must be the best that our engineers can design.

Let us now look at some of the causes of accidents as pertaining to the brake system:

1. Poor quality brake lining. When you see a brake job advertised for \$12.95, you can be assured that it is not worth even that amount. It may cost you your life.

2. Relining brakes on scored or out-of-round drums.

3. Poor quality repair kits or replacement parts of brake cylinder assembly.

4. Poorly trained or inexperienced brake servicemen.

5. Bonded brake lining: Adhesion between the lining and the shoe acts as an insulator, thus preventing the heat from dissipating from the lining.

6. Shim stock between lining and shoe also act as insulator with same results as above.

7. Leaking grease seals.

8. Leak in brake system.

9. The improper design of the brake mechanism whereby there is not enough brake horsepower to control the speed and weight of the automobile in an emergency.

Next in importance in safety features of the car is the steering system. This includes:

1. Steering housing assembly—manual or power.

2. Drag link or tie rod assembly end.



3. Upper arm mounting.
4. Lower arm mounting.
5. Upper and lower ball joints.
6. Idler arm assembly.
7. Front coil springs or torque bar.
8. King pin assembly.
9. Knuckle support.
10. Wheel bearings.
11. Front tires.

In my experience as an alignment man on all types of automobiles, I find that the front end of most of them are very well designed. However, there are quite a few inefficient parts used on our cars today. I have an exhibit of some of these which I would like to show you.

These parts that were removed from various cars in normal repair operations in my shop. Many of these failed because of poor design, many because of too much mileage before lubrication. Others fail because there has been no provision made for lubrication of moving parts when the car was designed. I have with me some slides showing the steering linkage on one of our popular cars. This linkage is used on many model cars from 1958 to 1964, and is very dangerous.

My position on the Moog Advisory Council brings me in contact with all the problems of the front suspension of the automobile. We have made many improvements, some of which I would like to show, if permissible. This type of improvement on these parts carries with it a lifetime guarantee to the customer who purchases the parts.

Many replacement parts are being installed on cars today which are better than the original parts. The American brake and front systems are very good when serviced at regular intervals by experienced servicemen.

The next most important thing in the way of safety is tires. Many accidents and deaths are in the loss of mileage to the motoring public and has also been the cause of many accidents. I am glad to learn that steps are being taken to set up a standard for tires.

I am in accord with Representative Mackay's program for establishing a traffic safety agency for all our States.

Mr. Chairman, we will be available for questioning later in the day. We have some examples we have been talking about which I think you gentlemen should see.

Mr. O'BRIEN (presiding). Thank you very much Mr. Hall.

Is Mr. William E. Scott present?

Is Mr. Marsh here?

I think, then, we will plan to hear those gentlemen later. I might say that I am very grateful to the chairman of the full committee for his cooperation in permitting the testimony to be presented in this fashion.

Is Dr. States present?

Our next group of witnesses can, I think, make a very important contribution to the solution of this problem. They are very distinguished representatives of State legislatures from my own State of New York, Illinois, California, South Carolina.

They are also accompanied by distinguished members of Parliament from Quebec and Toronto. I think their contribution will be important because many of these gentlemen have been engaged for a number of years in this particular problem. In some instances, I think they have gone beyond where we are now. I think we might in some respects follow the path they have opened up.

I would like at this time to ask our distinguished colleague, John W. Wydler, to introduce the first witness who, in turn, I assume, will present the other witnesses.

STATEMENT OF HON. JOHN W. WYDLER, A REPRESENTATIVE IN  
CONGRESS FROM THE STATE OF NEW YORK

Mr. WYDLER. Mr. Chairman, thank you very much. I am here for two purposes this morning. The first is to introduce my constituent, Senator Edward Speno, of the State of New York, and to say a few words on behalf of my bill calling for Federal participation in the financing of the development of a prototype of a safety car.

Mr. Chairman, Senator Speno represents a part of the congressional district that I represent here in Washington as a State senator in the State of New York.

Senator Speno is a true pioneer in the area of auto safety.

Today it is rather fashionable to talk about auto safety and take action in this area. But Senator Speno was taking action in this area when it was not so fashionable nor so acceptable to the general public.

He is a man who has led the way in this field in the State of New York. He was instrumental in getting seat belt legislation passed, working on tire standards, and today he is taking a very active role in this development of a prototype safety car.

In a way, I really think that this prototype safety car is a form of consumers' legislation. It is more or less a matter of truth in packaging of automobiles because when a person purchases an automobile he expects that the automobile is constructed in a manner which will protect his life and his property in the car.

It so happens, Mr. Chairman, that New York State has done the R. & D. work on the prototype safety car. This was performed under a contract let in New York State to Fairchild Hiller, and the R. & D. development work was done on Long Island, where my congressional district is located.

For that reason, on February 7 of this year, I put in H.R. 12632, which called for Federal financing help of this prototype safety car.

This financing is to be for the actual building of the car, the engineering work. This bill would have authorized \$5 million to pay up to 90 percent of such development. Personally, I believe it represents the best balance for quick results and real progress in the field of auto safety.

This idea apparently has caught on because on April 6 of this year, in the other body, Senators Ribicoff, Javits, Kennedy, Harris, and Nelson put in a similar bill, except for the fact that it was in the form of an amendment to Senate bill 3005.

I don't care if it is a separate bill or an amendment as long as the prototype safety car is incorporated in the final legislation, because I believe that the benefits that will be derived from this legislation will benefit the entire Nation and just not a particular State.

Mr. Chairman, I know of no one better able to discuss this than Senator Speno. It is for that reason that I am delighted to have him testify before this committee now and give you a true picture of this situation.

Mr. O'BRIEN. Thank you very much. I share with you the very high regard for the activities and efforts of Senator Speno. You mentioned that he is a constituent of yours. I think in a way he is



a constituent of mine, too, because most of his important work is done in my district, in Albany, as you are aware.

Mr. WYDLER. I am, Mr. Chairman.

Mr. O'BRIEN. So we share a great honor.

STATEMENTS OF HON. EDWARD J. SPENO, STATE SENATOR, STATE OF NEW YORK; HON. HAROLD KATZ, STATE REPRESENTATIVE, ILLINOIS (ALSO SPEAKING FOR HON. JOHN P. TOUHY, HOUSE SPEAKER, STATE OF ILLINOIS); HON. NICHOLAS C. PETRIS, ASSEMBLYMAN, STATE OF CALIFORNIA; HON. JAMES P. MOZINGO III, STATE SENATOR, STATE OF SOUTH CAROLINA; HON. HEWARD GRAFFTEY, MEMBER OF CANADIAN FEDERAL PARLIAMENT, QUEBEC PROVINCE; HON. FRED YOUNG, MEMBER OF ONTARIO PROVINCIAL PARLIAMENT, TORONTO; AND JOHN MOORE, DIRECTOR, DIVISION OF RESEARCH AND DEVELOPMENT, NEW YORK STATE DEPARTMENT OF MOTOR VEHICLES, ALBANY, N.Y.

Mr. O'BRIEN. I welcome you here, senator. I know of your remarkable work in this field. I know that all of us are grateful to you and to the other legislators who are here, for giving us the benefit of what you have learned and what you believe.

I assume, senator, you will, when you complete your testimony, introduce the others in your group. Is that correct?

Mr. SPENO. Yes, Congressman. I am pleased with this feeling that is prevailing this morning, and I am delighted that you are presiding at this time. I am young enough to remember that you served in the halls where I served in another capacity, as legislative correspondent. We started our respective legislative careers at the same time, you here and I in Albany.

I am a bit sorry to learn that you are retiring after having made such a wonderful contribution. Though we don't sit on the same political aisle, I am proud of the work you have done.

In the interest of time, Mr. Chairman, I would like to introduce the men who have joined me here and who have appeared with us before Senator Ribicoff's subcommittee and before Senator Magnuson's Senate Commerce Committee, and to advise you that we have formed an informal group which we have called a Legislative Initiative Group in the Nation on Traffic Safety.

Represented here today is Representative Harold Katz of Illinois, on my left, a member of the assembly, speaking for himself and for the Illinois House speaker, John Touhy.

On my extreme right, Assemblyman Nicholas C. Petris, of California, chairman of the important revenue and taxation committee, who travelled all night to get here this morning, having debated a bill yesterday.

On my left, Senator James P. Mozingo III, of South Carolina, chairman of the powerful highway committee in that great State.

On my right, Heward Grafftey, of Quebec Province, a Member of the Canadian Federal Parliament where this committee also appeared to give testimony.

On my left, the Honorable Member of Parliament, Fred Young, of Toronto, member of the Ontario Provincial Parliament.

I was to be joined by Senator Liebowitz, of New York, colleague of mine, who is in session today and unable to join me.

John Moore, research director of the New York Motor Department, and Mr. Henry Wakeland, safety car inspector of our State, and Mr. Prussin, consultant.

We would like to give you some part of our experience in this field because of the now obvious importance to the world of what we are talking about.

It is kind of you to say that we have been talking in New York about this for a number of years, about 12 to be exact, but it is important to know now that the President of the United States and this important committee and others are coming to grips with this problem.

For the record, I will hand up telegrams from the important State of Michigan, where the automobile industry is located, where I have been working with the chairman of the Interim Committee on Vehicle Safety, Senator John Bowman. Also, as a member of this committee, there is also Speaker Shephan, of the State of Iowa. The attorney general of that State testified before you a couple of days ago, I understand.

We will hand these up so I won't have to belabor you now.

Mr. O'BRIEN. Without objection, they will be made a part of the record.

Mr. SPENO. They will be handed up together with a copy of the feasibility report to which the Congressman just made reference, to which I will refer to in a moment, and some of our legislative reports giving some of the history in the general area of driver education, licensing, and road legislation in the State of New York.

(The document referred to may be found in the committee files.)

Mr. SPENO. We have enacted some 200 bills in the course of the 12 years we have been in this field which have set the pattern in some of the other States, though California is breathing down our neck with some progressive car and driver legislation.

What we did in New York in terms of the prototype safety car was to attempt to answer this question: Is it possible to design an automobile outside of the dollar influence of the automobile industry and the sales influence that can be crashed at the speed of 50 miles per hour with safety to the passengers?

It occurred to me when we first got into this, and I suggested this in 1962, that if we can send a man to the moon, and bring him back, why can't we design a safer automobile here on earth, why not go to the aerospace engineer and have him tell us a little bit about his experience and not do it in terms of the flashiness of the automobile?

The report that you have before you answers the question yes. It is only preliminary. It is based on the best studies that they have developed in the short time with \$100,000 appropriated by the State of New York. We are appropriating \$200,000 in the next 2 or 3 weeks in New York to continue the next phase of this, and that is the drawing of the actual designs, the engineering work, to implement these studies.

I would like to call your attention to the placard on the easel over there. There are about 138 items that are suggested here as real



possibilities. This is only the beginning. There was some criticism initially about that thing on the top. That is a panoramic pylon. It gives a true view of the rear and the front without obstruction from people's heads in the car. The bumper is designed especially.

In New York State we have one of the biggest incidents of pedestrian injuries, about a third of all of the injuries being pedestrian. The bumper is designed to take the shock, with rounded corners, where you can cushion the impact of the body against the car. There are no deflector materials on the hood.

I am not a designer of automobiles but I have lived with this quite a while. The windshield is no longer curved in the first presentation. It is flat, but, as you can see, it is put actually two feet from the head of the passenger. The passenger sits down into the car, almost like bucket seats. There is a steel plate in front that deflects the engine from going through into the passenger compartment, deflects it to the ground. You can see the collapsible part of the chassis so that the impact can be taken by the car before it reaches the passenger inside.

Absorbing material is on the sides of the passengers, with a roll bar across the top. Again, there is a better view of how the passenger sits down into the automobile. This sounds like a commercial. I don't want to overdo it.

That shows the side section of the door where the absorbing material would take the impact from the side; lateral collisions would be absorbed before the impact reaches the passenger in the car. There is even a special carriage for the baby to sit in between the seats, fastened in.

Here is an interesting slide. This is the trunk area. Some of our accidents with pedestrians involve people getting to the storage area of the trunk. This trunk swings from either side, to take the passenger away from the traffic in the street. To get at this trunk, you go to the curb side. It will go up on either side. You will notice that everything is inserted. There are no protruding objects on the tail part. You can see the door sections.

All the instrumentation is indented and concealed so that it doesn't protrude.

Here is a concept of how you step into the car, with a flap on the top.

When you look at the whole car, this is not such a way-out vehicle that it offends our sense of modern designing, and yet we are told that we can crash this car safely at from 25 to 50 miles an hour without injury to the passenger in the car.

If this is so, and all the talk we have had here in Washington, intelligent talk, about mandating safety standards, what better way to lead the way and to make for meaningful standards which would be set by the Secretary of Commerce or the Secretary of Transportation if you create this new office, than the proved-out experience of scientists in this State, Canada, California, Illinois, wherever this work should be done, and then the industry mandated to do this by whatever device you in Washington decide should be the case?

I don't want to join the indictment of the automobile industry. I have done it for 10 years. They have indicted themselves because they have dragged their feet in the equation of human slaughter with the

automobile, and they have put styling, glamour, looks, sales before safety. Now, finally, with seat belts and with tires, which we have done in New York and now the other States, and you here in Washington, the industry is yielding.

I don't know whether we ought not take a cautious look at their yielding because I suspect what they said the other day here is like the Greek with his gifts, beware of his horse. They have a shiny car instead of the horse. I suspect they would like to let the States do it. That is the song they sung for so many years.

In Albany, Mr. Chairman, for 12 years, I would meet with the lobbyists from the automobile industry and they would say, "You fellows ought not do it in Washington. There are 50 of you, and we would have to talk to 50 of you. Let us go to Washington."

And then when they come here, they would say, "You ought not do it. The States are ahead of you. Let's do it through the States."

They would tell the same thing to both of us, though differently. Then they came up with this compact idea, this commission, which I thought was good, at first. I was chairman of the committee which let it out in New York, and the first State to adopt it. And then I realized this was the vehicle of the industry, itself. It was their device to avoid what you are trying to do and what we are trying to do in New York.

Gentlemen, I think we are at a point now where if you will permit some of the States to continue with their initiative and if you will use just a part of the moneys that the President of the United States has very wisely said ought to be put to bear on this important area of human slaughter, we can go forward with some research that we have done in New York and the other States now, and which another nation wants to join us in, to meaningfully set some standards that can make the car safer.

I will address myself quickly to the question of preemption. I am troubled. We met last night in an informal meeting, my colleagues and I, and, of course, we jealously cling to the States' jurisdiction in a number of areas and we are quite concerned about the trend toward more Federal overtaking of some of these areas of responsibility.

I think, sir, that I would welcome, and have welcomed, the Federal involvement in the area of traffic safety because you have the powerful force of the Federal Government.

Much of this is in interstate commerce. You have the funding availability. But don't stifle us in the States. We have led the way. This Nation is strong by the thinking of the State governments in various parts of our great Nation. We all were in session yesterday. I was in session to change the divorce laws after 178 years, Assemblyman Petris to go into some taxation problems, all of us were dealing with various problems.

Don't stifle us, don't say we can't get into this field. I would suggest that you defer the preemptive aspect. Let our initiative, our thinking, our collective research proceed before you close the door to our availability to join in this important area of developing the safest car.

I thank you very much.



(The prepared statement of Senator Speno follows:)

STATEMENT OF NEW YORK SENATOR EDWARD J. SPENO

On behalf of the New York State Legislature and legislative colleagues who have been kind enough to join me here from California, Illinois and South Carolina and fellow legislators from Michigan and Iowa represented here by their telegrams, I thank this committee and its chairman for its consideration and courtesy. Two legislators are here at my suggestion from our neighbor Canada which is interested in supporting and cooperating technically with the Safety Car Project.

I would like first to introduce this legislative delegation, all members of which have left their sessions and come here despite difficulties and inconvenience in the hope we may be able to help this committee in its deliberations. Introductions. I would like to read into the record a few telegrams and communications supporting the Safety Car Project, from the majority leader of the Michigan State Senate, the Speaker of the Iowa House of Representatives, and to indicate international interest, from the Minister of Transport of New South Wales, Australia. I would like to submit to this committee copies of our Safety Car Feasibility Study and copies of New York legislative reports which relate our history in the achievement of greater highway safety and safer cars.

In view of the size of our group and this committee's time limitations, I will merely outline the gist of the multi-state presentation, which focuses on the evolution of minimum safety standards for automobiles and the continuing responsibility of the states in this matter.

1. We agreed that there should be mandatory federal standards and that the creation and crash-testing of a prototype safety car outside the influence of the automobile manufacturers is the best method of evolving such standards. We are agreed that the Safety Car Prototype amendment proposed by Senator Ribicoff et al (pursuant to New York legislative testimony before his Subcommittee on Executive Reorganization last February 4) is excellent. We urge that the substance of this proposed amendment to S. 3005 become, under House sponsorship, part of H.R. 13228. We are agreed that without such a project to help him, the Secretary of Commerce or Secretary of the proposed Transportation Department will be in thrall to Detroit, subject to the monopoly Detroit now holds over technical information. We all need other sources of information and other proof of performance.

2. We are troubled by the preemptive clause of the federal Highway Safety Act and would like to discuss that. It is a very difficult problem. What if, for various reasons, even with a prototype safety car as a source of guidance, the federal standards to be promulgated are not as strong or as good as they might be. Under the preemptive clause, as a practical matter, the states would be barred from doing anything effective about it. When the automobile manufacturers talk as they did this week about states participating in setting standards, they mean the Vehicle Equipment Safety Commission which gets all its technical information from Detroit.

3. We have gotten our most relevant information in the past from independent engineers and doctors and universities. We are thinking about some method of continuing the potential for state legislative initiative. We here from the states, and this may be the only dialogue between the Congress and state legislators on this subject during this session of the Congress, represent more than 50 years of automotive legislative history. The federal government is new to the field. We hope we can provide relevant information for your consideration.

I sense that the pendulum of opinion is on the point of swinging back from concentration on the automobile as a culprit because so much has been said about it, and so dramatically, during the past year. We do favor a balanced approach involving the driver, the road and the car, and in New York we have legislated intensively in the context of driver-oriented laws. But we do believe that making the automobile itself much safer must be the priority action because we know of no other truly effective priority action.

We would like to remind this committee that there was a substantive history of struggle to make the automobile safer, initiated and led by the New York Legislature, before 1965-66, before the Ribicoff hearings, before a book by Mr. Nader was published, before the introduction of the Highway Safety Act of

1966. We are most aware of the informative hearings conducted by Mr. Kenneth Roberts during the late 1950s as chairman of a subcommittee of this committee.

Our New York State legislative successes in this area, and we were alone but for moral support elsewhere, included getting seat belts installed as standard equipment in all the nation's automobiles and placing the entire issue of new tire safety standards before the public, the other states and the Congress. Another outstanding example of state initiative was California's national leadership in mandating devices to reduce automotive air pollution.

We originally set forth the thesis which is still extremely valid although recent repetition is making it a cliché:

The automobile is the only component in the intricate highway-carnage complex that can readily be changed and modified for safety purposes and the automobile is murderously unsafe for the conditions under which it is used. We don't know how to prevent the majority of accidents from happening, but we do know we can ameliorate the results of these accidents and measurably reduce fatalities and injuries.

In progress to date regarding making the automobile safer, the states have been effective because they have been able to legislate. Without that ability, state legislators can merely suggest. We have not, by the way, found that there has been a real time-lag caused by the desirability of uniformity of laws among states. This argument is mainly a Detroit fiction.

Gentlemen, it is our best opinion that the majority of accidents are caused by people being inattentive at some point in their driving careers. We are all guilty, at some point. This will be the case as long as people drive cars. Most of us are lucky enough to escape serious accidents. For those not that fortunate and to a lesser extent for all of us, we urge federal participation in the Safety Car Project being designed for us by Republic Aviation Division of Fairchild-Hiller, an aerospace firm, and federal funding of 90 percent of the \$5,000,000 total project cost. I will now, as briefly as possible, explain the major aspects of this design to this committee.

Mr. SPENO. I wonder if I can suggest that you might withhold your questions until all of us have been heard. Perhaps that would be a better way to cross the whole subject.

Mr. O'BRIEN. I was about to make that suggestion. Of course, it would be at the pleasure of the committee.

Mr. SPENO. I think protocol would suggest that we introduce the Member of Parliament, since he is from a federal branch of government, Mr. Heward Grafftey of the Quebec Province, a Member of the Canadian Federal Parliament.

I would like you to understand this is a truly bipartisan committee. Well, not truly, I am the only Republican and the rest are all Democrats.

Nevertheless, Heward has led the way in Canada against the great opposition from the Government in this area in telling the facts and doing it in a courageous way.

Mr. O'Brien. I can sympathize with you. In my first 7 years down here I was the only Democrat in Congress on the main line of the New York Central from the Bronx.

Mr. SPENO. Upstate has changed a good deal while you were away.

#### STATEMENT OF HON. HEWARD GRAFFTEY, MEMBER OF CANADIAN PARLIAMENT, QUEBEC PROVINCE

Mr. GRAFFTEY. Thank you very much.

I am Heward Grafftey, Federal Member of Parliament, from Canada, and it is truly an honor and a privilege for me to testify before you today.



Highway deaths and injuries constitute an epidemic of massive proportions which must be met with massive public support and expenditures.

On the Provincial level, we must educate better and safer drivers, build better and safer roads, and insist on the regular inspection of motor vehicles relating to safety factors.

On the Federal level, it is the obligation of the Federal authority to bring the automobile and all motor vehicles under the rule of law. The Federal Government must order that all scientifically proven safety features be included in all cars made in or imported into Canada.

It is my belief that while all factors are important to consider in this epidemic, if this one thing were done right away we could probably cut the statistics in terms of deaths and injuries by at least 50 percent.

This epidemic is the prime killer of citizens between the ages of 18 and 35. To bring it under control we need (a) an aroused public opinion; (b) legislators who are willing to act; and (c) an automobile industry that puts more emphasis on safety than styling—an industry that will start living up to its responsibilities and obligations to modern society.

The automobile industry says a safe car would be a more expensive car. I maintain that a safe car, containing at least 20 proven safety features, could be mass-produced at an average increased cost per unit of \$100. This does not take into account the extent to which insurance premiums might be reduced.

The industry also says that they cannot build a "safe car" and a "beautiful car" at the same time. I ask to what extent do the following features detract from beauty: Properly recessed and padded dash panels, proper door locks on cars to prevent ejection from the vehicle (36 percent of road deaths are caused from ejection from the vehicle), seat integrated and moved to the frame of the car, brakes and tires brought up to proper standards?

I am talking here about two things: (1) Preventing accidents in the first place; and (2) reducing the possibility of death and injury once an accident takes place.

Proper brakes, proper tires, nonglare visibility, rear and side window defrosting, the proper heating and air conditioning of the vehicle, and seats engineered with driver fatigue in mind, these are some features which would help to prevent accidents occurring in the first place.

Recessed and padded dash panels, proper door locks, shoulder harnesses, seats integrated to the frame of the car, are only a few features which would reduce the possibility of death or injury once an accident did occur.

Today, we know that we are seven times safer in "the air" than on "our highways." Why? Millions of dollars have been spent—

On licensing safe pilots;

On air traffic control and navigation regulations;

On building safe aircraft.

In Canada, after the tragic air accident over 2 years ago at St. Therese, Quebec, which took over 100 lives, the Federal Government

spent over \$4 million attempting to discover the reason for the crash.

Yet, over 100 people die each week on our highways. About 15 minutes after the morgue wagon leaves the scene of the accident, the wreck is towed away to the junk pile. Nothing is spent on research.

Ships, rolling stock on railways, and aircraft fall under the "rule of law." What has happened to the family car?

Apart from recommendations I coauthored in a brief presented to the Prime Minister of Canada last July, I place these additional recommendations before the committee:

1. The automobile industry in Canada and the United States should jointly agree to forgo needless and costly style changes for the next production year. Engineering and retooling costs would be sharply reduced. The millions of dollars thus saved could be devoted to safety research and to the incorporation of scientifically proven safety features as standard equipment in all cars.

The main purpose of my visit here to testify is to support any amendment, anything that can be done to speed the building and completion of the New York prototype safety car.

2. The government of the State of New York has made a great beginning in the production of a prototype safety car. This car must be built. Its completion is a necessary first step as we move on to combat the epidemic of highway deaths and injuries.

Public authorities are now drafting codes relating to proven safety features which should be included in motor vehicles at the production stage. Officials doing this work must have valid data on which to base their conclusions. This data can only be provided from such a prototype safety car, built by a public authority independent of the motor vehicles industry. New York State has made the only real beginning in this regard.

The Government of Canada stands ready to assist the project in a material way. Our National Research Council can play a real role in the completion and production of the New York car.

Mr. Chairman, let us act now. No more time can be lost. If this committee supports the New York project, I know future generations will say "Thank you."

I simply feel when the public in North America buys something as expensive and as dangerous as a motor vehicle, they should be purchasing a motor vehicle as safe as modern science and technology can produce.

Again, thank you for the opportunity to testify before you.

Mr. O'BRIEN. We are grateful to you, sir, for coming here and giving us the benefit of your views. They will be most helpful.

I might say, senator, before you introduce the next witness, that Mr. W. W. Marsh, executive vice president of the National Tire Dealers & Retreaders Association has arrived, and if he will be patient, we will hear him after this particular panel.

Mr. SPENO. Thank you, Mr. Chairman. I know it is inconvenient to others, but we do appreciate this opportunity to proceed.

Representative Harold Katz has been a pioneer in this area, Mr. Chairman, from the great State of Illinois. He will make his presentation now.



STATEMENT OF HON. HAROLD KATZ, STATE REPRESENTATIVE,  
ILLINOIS (ALSO SPEAKING FOR HON. JOHN P. TOUHY, HOUSE  
SPEAKER, STATE OF ILLINOIS)

Mr. KATZ. Mr. Chairman, I appear on behalf of myself and Speaker John P. Touhy of the Illinois House of Representatives in support of the President's program for highway safety with the addition of a Government-finance prototype program.

As it now is, the most important thing a person should know when he buys an automobile is the one thing about which he is totally without knowledge—the crash-worthiness of the car.

Manufacturers, on the alleged ground of confidentiality, refuse to make available either to customers or to medical researchers such statistics as they have available relating to the performance of the vehicle in crash situations.

More than a fourth of the passenger toll results from the collision of the driver against the steering wheel and rod, yet how is a person to know if the car he is buying is particularly conducive by the nature of its design to that kind of hazard without Government testing and standards.

I feel certain that none of the members of this committee knows the crash characteristics of his own automobile in a head-on collision at even a moderate speed of 20 miles an hour. Yet this may be the difference between death and survival. The collapsible steering wheel announced by General Motors for 1967 models is decidedly a step in the right direction but is quite inadequate when judged either by injury potential or the present state of medical and engineering competence.

We cannot ignore the reality any longer of hundreds of thousands of automobile accidents. The difference between death and survival is frequently in the design of the car itself.

I am sure that in all of our communities we cannot put up a home which does not conform to safety standards. Why should it be any different with automobiles that are infinitely more destructive of human life?

By intensive concentration on protecting passengers in the one twenty-fifth of a second between the initial accident and the subsequent collision within the vehicle itself I believe that we can make giant strides in solving this problem. Each week of delay results in the unnecessary loss of 500 American lives. It has always been true that we can protect human life if the interior space in the cabin area of the car is not invaded or compromised in an accident and if the occupants are not thrown about the interior of the automobile.

Let me say in that regard that the familiar types of American automobiles, the hardtops, for example, and the convertible, ignore elementary principles of the safer design of automobiles.

The ordinary hardtop, which is so popular in the United States, if it is stood upright, the weight of the car alone will collapse the top of the car. You can imagine what the situation is when the car is actually rolling and has the impact of the roll, itself, to cause the crushing of the occupants of the car.

Similarly, the convertible has the same basic deficiency. The automobile should be a capsule that insulates the individual from the

hazards of automobile travel, and yet the convertible suffers both from the point of view that if the individual remains in the car he is crushed, or if he is ejected from the car the chances of his serious injury are greatly increased.

It is incongruous that a nation that can package everything from eggs to astronauts for survival despite the hazards they face in travel has never really turned its engineering and medical talents toward the packaging of human beings so that they can survive most automobile collisions without significant mishap.

Such a result is entirely technically feasible and requires only decisive intergovernmental actions toward the manufacturers and strong public support to bring it to fruition.

I support the President's program for the creation of a new Cabinet post of Secretary of Transportation. I support Federal testing and standards and the prohibition against the sale of cars interstate which fail to meet minimum standards.

The wisdom of the bill's provision preempting the subject of standards from State regulation after Federal control is asserted is one to which I have given much thought.

I remember Mr. Churchill's classic comment that he did not become the Queen's first Minister to preside at the liquidation of the British Empire. Similarly, as a State legislator, I recognize that I have diverse motives in connection with the safety problem.

I do believe very strongly in the necessity of preserving the vitality of State government. And yet it does appear to me, as I consider the problem, that the interstate character of passenger cars makes Federal regulation necessary and desirable and militates against State regulation which could vary significantly and interfere with interstate commerce. The States will still have a large domain in driver licensing, solution of the alcohol and traffic problem, and many related subjects which cry out for intelligent and vigorous State action.

The solution of the alcohol problem is a major problem, as I said. We would not lack, I think, for areas for intelligent and vigorous State action even if the subject of the design standards of the car were taken by the Federal Government.

I would, however, hope, let me say, that the wonderful work that New York has done, under the leadership of Senator Speno in the development of a prototype automobile, would be recognized, and that New York as well as the other States might participate in the construction of a prototype automobile.

It is certainly clear that without the construction of such an automobile, I do not believe that we can ever reach the true potential that exists for really solving the major public health problem that we have in this country, which is the unnecessary automobile fatality toll.

I have some additional comments, gentlemen, which I have made, which deal with the very practical problem of what should the ordinary citizen do in the interval when now and when the potential of your program is realized in terms of preserving his own life.

I have indicated in my testimony before some of the areas of the problem. For example, the increased chance of injury and death for those who choose to use convertibles and hardtops as against the good



old-fashioned sedan, which has much to commend it, in that it will simply support the top of the car

The fact is that the hardtop really will collapse like a Japanese lantern in terms of a rollover accident, and yet we know that one out of every five injury-producing accidents is a rollover accident.

So I think that the ordinary citizen aware of that hazard can very well, while still being interested in style and interested in a car that he likes, decide if he is aware of the statistical probabilities to trust his life to a car which will give him additional protection.

The seat belts and the rules concerning the wearing of them, the importance of the fact that the seat belts should be low and not over the abdomen, that it be snug, the advantage of the new three-point kind of belt that combines a shoulder strap with a seat belt, all of these things are tremendously important and can very easily be the difference between living or dying in one of the 50,000 or so death situations that seems to occur every year in the United States.

Tips for survival—How to stay alive in a crash:

1. Wear a seat belt even at modest speeds in the city. (Even moderate speeds can easily kill with present design.)

2. Wear the belt over the hips and low enough so that the bottom touches the upper thigh. (A seat belt worn over the abdomen can cause internal injury in an accident.)

3. The seat belt should always be snug. (Wearing a loose seat belt is like an egg shipped loosely.)

4. If you can find a shoulder strap, use it—it is superior to the seat belt as a passenger-restraining device. Best of all is the new "three-point belt" that combines a shoulder strap with a seat belt. It furnishes three times the protection of the seat belt alone.

5. Lock the interior of the car when driving to lessen the danger of the door opening in the event of a crash. (Ejection greatly increases the risk of injury.)

6. Don't purchase tinted windshields. (They lessen vision.)

7. Avoid convertibles. (They are a menace, particularly in a rollover accident.)

8. Be wary also of the light compacts. (Their occupants have higher injury rates in accidents between the small compacts and larger cars.)

9. A sedan furnishes far superior protection to the occupant over the hardtop in the event of a rollover accident. A hardtop will not even support the weight of the car itself. If placed upside down it will collapse like a Japanese lantern for it has no center post to support it. (Since one out of every five injury-producing accidents involves a rollover, the danger to the passenger in the hardtop can be readily perceived.)

10. Do not leave bottles, or pointed or heavy objects in and about the car and station wagon. (In the event of a crash they operate like shrapnel sailing about the car's interior.) Seat belts in the back of station wagons are ideal for holding down cargo.

11. Do not leave heavy objects loose in the trunk. (They can invade the passenger compartment in a serious crash.)

Mr. Chairman, in closing, I may say that we in Illinois have been interested in Federal action. We passed a resolution last time calling upon the Federal Government to take the initiative.

We are very pleased that your committee and our Congress has interested itself in the problem. I believe that you can make a major contribution in the public health field in the United States.

Mr. O'BRIEN. Thank you very much.

Mr. SPENO. We now swing to the almost too powerful State of California, the second-ranking member of that legislature is here, Mr. Petris, chairman of the committee on revenue and taxation.

**STATEMENT OF HON. NICHOLAS C. PETRIS, ASSEMBLYMAN, STATE OF CALIFORNIA**

Mr. PETRIS. Thank you very much. I will try to compact my remarks. I am sorry that because of the pressure of work in Sacramento, I have not been able to reduce this to writing. I want to note with pride that two members from California are members of your committee, Mr. Younger and Mr. Moss.

I want to emphasize first I am speaking only in an individual capacity as a member who does have legislation on this subject now pending in the California Legislature, which I hope will succeed.

I was interested in Senator Speno's opening comment about beware of Greeks bearing gifts. I claim Greek descent. I don't come here bearing gifts, but I come here to emphasize and to remind all of us that perhaps the greatest gift horse that we should look in the mouth very, very closely, is the horsepower gift from Detroit.

I think we have emphasized in our society certain aspects of the automobile. We as members of the public and as legislators really should share whatever blame we are placing on the manufacturers for sacrificing so many features that should have been in this horse or this combination of horses that we now have in our automobiles, sacrificing them to style and so many other things which are not nearly so important as the safety features which Senator Speno is suggesting in the prototype program in New York.

I come from a State which is the biggest in the Nation, and which likes to brag about many of its programs, but I am sorry to have to brag that it has the largest record of auto fatalities, 5,000 persons killed last year in or by automobiles. That is more than all the soldiers we have lost in Vietnam since 1961.

In one year alone, 5,000 deaths in our State, and 220,000 injuries.

We in California are trying to develop one of the best statistics programs. We have led in the field in many instances by requiring certain things to be in automobiles. We have taken the lead nationally in some of those features. We have one of the best driver training programs. We have one of the finest systems of highways and freeways, which are increasing and being made more and more safe each year.

Last year we voted to double the size of the highway patrol, which is now at 2,500 and which will go up to 5,000 within the next 5 years. We have adopted the 17-point safety feature program for State-owned automobiles, following your lead in the Federal Government.

We have done many other things, but we have not done enough. My purpose in being here is to urge you to adopt the Highway Act you are considering, and, above all, to adopt a program which Senator Speno has so ably started in the State of New York.



My own legislation in California—and I can't predict the outcome, but I hope it will be successful—is to appropriate a modest beginning in the sum of \$100,000 to supplement the work being done by Senator Speno in New York, by directing our own Institute of Transportation and Traffic Safety at the University of California to supplement and to cooperate with the State of New York so that this work is not duplicated.

We are also proud of the fact that in California we have taken the lead in harnessing and tapping the enormous resources that we have in the scientific community which has done so much in the space field.

We feel that if they can solve the enormous problems that they have tackled in space, this talent can be used to solve some of the problems on the ground. We commend the State of New York for tapping this talent and developing a prototype automobile.

We have asked these scientists to solve four of our most pressing problems in California and they are working on them at the present time.

I submit, gentlemen, that we must get away from the current and past emphasis on style and on beauty of automobiles, and on the current and past mode of fashion to blame the driver for everything that happens on the highway. The driver is responsible up to a certain extent, but there are certain defects in automobiles that must be cleared up and the only way to do it, it seems to me, is through a program of this kind.

I thank you very much for extending this courtesy to me. I urge your support for the senator's program and having it incorporated in the Federal legislation.

Mr. MOSS. Mr. Chairman, I would just like to point out that my distinguished fellow Californian arrived here this morning on that jet-powered, red-eye special, and in the tradition of the great Greek Nation brought the item of gift to be treasured above all others, his wisdom.

Mr. PETRIS. Thank you.

Mr. O'BRIEN. Thank you.

Mr. SPENO. I would like to inject here that one of the thrusts of what we are trying to say to you today, and I was reminded of it by Assemblyman Petris' point, is that we would like to inject into this area of traffic safety the notion of competition of ideas.

Think about it a moment. The automobile industry has been self-disciplined, self-controlled. Four corporations run the whole show. It has been a monopoly unlike that that we have ever known before.

As a matter of fact, the Attorney General commented to Senator Magnuson that really they can't complain about monopoly. It has been their monopoly, in fact, that has made it possible for them to foreclose the kind of thinking we are trying to project into this area. What we are saying is to permit this competition of ideas in a true partnership in terms of designing an automobile.

Let's go back to Canada. Fred Young is a Member of Parliament, the opposition party, the Province of Toronto. We appeared before the committee of which he is a member, the highway committee in Canada, 2 or 3 weeks ago.

STATEMENT OF HON. FRED YOUNG, MEMBER OF ONTARIO  
PROVINCIAL PARLIAMENT, TORONTO

Mr. YOUNG. Mr. Chairman, I very much appreciate this opportunity today in appearing before you in respect to the prototype safety car.

The Province of Ontario is the northern neighbor of five States: New York, Pennsylvania, Ohio, Michigan, and Wisconsin. The St. Lawrence River and the Great Lakes system separate us physically for most of the distance. We are already working with you to overcome the pollution which has built up in these vital waters and to repair the damage which years of neglect have caused to this irreplaceable continental asset.

I feel certain that the same kind of cooperative effort can be undertaken in the matter of car safety. Within the past couple of years the automobile plants of your Nation and mine have been coordinated. International agreements have in effect canceled the border as far as this industry is concerned.

Now, with a common fabricating complex and with a common concern for the safety of its products, it is my hope—and the hope of a great many Ontario citizens—that we can work together in a double job of making highway accidents less likely and less lethal.

Ontario is Canada's largest province. We have 7 million people and produce 40 percent of the gross national product. Almost all the nation's motor vehicle industry is located within our borders and we drive  $2\frac{1}{2}$  million motor vehicles—one for each 2.8 people. We kill 7.8 persons per 100 million miles traveled as against your national average of 5.6. Perhaps weather conditions in the northern part of Ontario and the gravel roads in that area have something to do with this.

Last year, 1,600 people died on our highways—13 percent more than in 1964. We injured 61,000—11 percent more than in the previous year. We listed property damage at \$70 million—up 13 percent in 12 months.

We are making tragic progress in using the motor car as a lethal weapon. The result is seen in soaring insurance rates, in crowded hospitals and in medical men rising in protest against nightmarish weekends of smashed bodies and split-second death.

The motor car is levying an ever-increasing toll in death, dismemberment, grief, pain, lost production and disruption of homes—often accompanied by permanent impoverishment. The total cost in this field is impossible to estimate. But we know it is enormous.

For too long we listened to the soothing assurance of the automobile industry that the increasing highway problem can be traced directly to the drivers concerned, or to the highways system. We were brainwashed into thinking that if we could just get the driver to behave himself, and if the department of highways would build safer roads, most of the difficulty would disappear.

Until recently, few questions were raised about the right of the automobile industry to set its own engineering standards. Our attention was directed to careful driving, proper signs, penalties for traffic violations and the like. In my Province the only safety features demanded by law on motor vehicles are these:

Two lights in front, and one in the rear (red).

Two sets of brakes—regular and emergency.



Safety glass—without definition.

Windshield wipers and a rear view mirror.

That's all.

Within the past year more people have been pointing the finger at the car itself as suspect in the rising toll of highway injury and death. Metropolitan Toronto's chief coroner has been calling for more safety features in cars. Some of us in the political arena have been drawing public attention on the need for study, and action, in the field of car construction. But progress has been slow. Flashy chrome and the squishy ride continued to dominate the situation for us.

I wish to stress the next point very strongly.

Then came the New York State safety car project. This gave us a focus to our activities. For the first time there seemed to be a practical and visible symbol which people could understand. Trus, the car wasn't built. But the picture of the car and the program surrounding it had a profound effect on public opinion and public thinking. People could now see a serious project being undertaken by a government. It was different from all the talk and the promises which had emanated from Detroit.

All of us understand, and need, symbols; the flag, the cross, the Star of David, the green beret, the United Nations map of the world. These and thousands of others crystalize opinion and call forth an immediate response in the minds and hearts of men.

The concept of the safety car caught on in Ontario and became the symbol of the safety crusade. When the first phase of the feasibility study was completed, I called it to the attention of our Provincial Parliament and then I visited Albany at the invitation of the State legislative committee on motor vehicle and traffic safety.

On my return I launched a drive to present the safety car to the people of the Province. I felt that here was a symbol that gathered together what we were trying to do.

I urged the Government to work with the State of New York on the safety car project. The press of the Province and the public information media gave their full support, not only in supporting what was said on both side of the border but also through their editorial columns and comments. The result has been rapidly growing interest in car safety right across Ontario. And it's interest centered in the safety car and fostered by news of action before your committees as well of local activity.

Within our own Provincial Parliament interest grew. Already this year several Members have spoken at appropriate times on the subject of car safety. Then, a few weeks ago, our Transport Minister, the Honorable Irwin Haskett, invited Senator Speno to address our Highways and Tourism Committee on the subject of the safety car.

Senator Speno spoke. All members of the legislature were invited and well over half of them were in attendance—which spoke well of their interest at that time—as well as a full complement of the public information media. The results were immediate, not only among the members, but right across the Province.

I can't speak officially for the government of Ontario. I am a member of an opposition party. There is an election due next year and hope springs eternal in the human breast. But I can say that our Government is taking a close look at the safety car.

It has not yet arrived at a policy and so can make no official pronouncement in respect to it. But there is no question that as our citizens learn of the safety car and of its possibilities they are ready to support positive action.

I recently circulated to every home in my constituency copies of a speech I had made in the House on the safety car and its implications. I enclosed a questionnaire to be returned. Replies are still coming in.

The first question I asked was this: "Do you favor government action to set safety standards for motor cars and tires?" The replies were 95 percent in the affirmative and 3 percent in the negative. The other 2 percent had no opinion.

The second question was: "Do you think the Government should help develop a safety car?"

To this, 72 percent said yes, 21 percent said no, and the rest didn't know. Many of those answering "no" appended a note saying they agreed with the idea of building a safety car but that the industry, rather than the taxpayer, should foot the bill.

We also have economy-minded citizens.

One of the significant facts in connection with this questionnaire is that I am getting 3 times as many replies to it as I ever got to others I sent out. People are sending in positive answers in large numbers—and they are paying the postage to do it.

In Ontario popular pressure for a safer car is building up. We are finding out, for the first time, that a relatively safe car is not only possible but that it can be designed to be beautiful and powerful and that it can hit the market at a price we can afford. The driver is no longer the only culprit.

The actual structure of the car itself, with its lethal knobs and protrusions, with its flimsy sidewalls and its inadequate tires is coming in for examination. Our people are watching your inquiries. Their cars, with yours, are being called in for safety adjustments and repairs. They see these things and they are concerned.

It is on behalf of these Ontario citizens that I appear before you today. Too many of them will die prematurely on our highways during the next few years before anything practical can emerge from present discussions. And I am here with the greatest of respect to urge your great nation to move forward with all possible speed in this matter of car safety.

You have been setting the pace. The New York safety car project has captured the imagination of our people and we hope that before long our own government will give practical support to it.

In the meantime, you on this side of the border have made substantial progress. You are now in the position where you can make the safety car project a reality by speeding up the construction and the testing of the prototypes.

You can thus demonstrate to yourselves, to us, and to the world that safer cars are possible to build and practical to operate.

You can, in fact, lead the world in an actual demonstration that present levels of death and destruction on the highways need not continue.

As far as we are concerned, the feasibility study, with its picture of the prototype car, has resulted in a dramatic upswing in interest in



highway safety in our Province. Building and testing the prototypes will add to that interest and to public pressure for practical action on the part of governments. Conversely, any letup in the program at this time can have an adverse effect.

Interest in automobile safety is now high. The slaughter on our highways has reached such proportions that people are ready for governmental action and will support it. The safety car is the symbol of that governmental action. Building it demonstrates that government is willing to take the initiative to cut highway casualties.

As long as the safety car program is moving forward people know that the industry is on the defensive and that it must act to build safety into their cars, if only in the hope for forestalling legislative controls. Thus, even before the safety car is finally tested, thousands of lives may well be saved through industry action.

But if the car stalls—if the appropriation for the construction of the prototypes is not forthcoming, then the symbol disappears. The heat is off the industry and the safety crusade loses its thrust and drive.

It is true that what has been done won't be entirely lost. The industry now, in the light of recent events, must move forward in the safety field. But without the spur of the actual construction of the safety car, that movement is almost certain to be far too slow.

The drive for sales, the catchy chrome, the short cut to more profits, will still dominate. And too many people will continue to die on our highways. The safety car is needed. It is the symbol of governmental determination. It is the guarantee that an industry, which so far has demonstrated too little concern for safety, will give safety the emphasis it should have had long ago. The destiny of far too many of your people as well as ours is bound up with the progress, and the speed, of the safety car program.

I regret that I cannot now assure you of official support from the Province of Ontario. I am, as I have stated, at this time sitting in opposition and the government can hardly make representation until it has arrived at a clear policy.

It is now taking a look at the safety car program. It has already moved to set up an accident research bureau in the department of highways. The research director has been instructed to gather information in the highway safety field and he has been told to travel wherever necessary to get it. Ways and means of cooperating in the New York safety car project are now being explored. We are making a start. It is later than yours. But we are moving.

In the meantime, I can assure you that large numbers of our people are looking to you with confidence believing that you will act in this matter before too many more lives on both sides of the border are needlessly sacrificed.

We are looking to you to give the lead now in this significant undertaking—one from which great benefits will flow to all mankind. Your Nation has set the pace in a great many fields of human endeavor. You led the world in the development and effective utilization of the motor car. You pioneered a highway system without peer anywhere. Your Nation can now again lead in the crusade to combine the motor car and the highway system into a safer and more effective instrument for human progress.

Again I thank you for this opportunity to testify before you today. The people I represent respectfully request that you see the safety car project through to a successful and a speedy conclusion.

Mr. SPENO. We have one more member, Mr. Chairman. I would like to add that this problem and question we are talking about has a world concept approach. I read yesterday in a metropolitan paper that Germany is now talking about a traffic safety committee. I dare say that this is a problem with which we could even go to Russia and peacefully coexist with that nation in safety, if there is an area. They may have some know-how that can help us. I am serious.

I am talking about something that will affect the world in terms of putting onto our roads everywhere the best and safest types of automobiles.

Now we come to a very pleasant man whom I have been dealing with by correspondence and only met formally last night for the first time, probably the most powerful legislator in South Carolina, 32 years a member of that legislature, Senator James P. Mozingo III, chairman of the highway committee of that State.

The CHAIRMAN. We have a colleague from the great State of South Carolina, Mr. Watson.

I might state that you have a man who has been on this committee for some time who has been a conscientious and able legislator.

Mr. WATSON. Thank you very much, Mr. Chairman.

As has been pointed out, I believe Senator Speno is the only Republican of the group testifying, and my esteemed colleague, Senator Mozingo, is a good Democrat. I know he is a dedicated South Carolinian and a real American. He is vitally concerned about this problem.

I believe he is the third ranking member in seniority in the South Carolina Legislature. He is an outstanding public servant and one of the foremost trial lawyers in the United States of America.

I can say by way of parenthetical expression if you had more like him, we would not only be able to talk about this matter of safety, but he makes the automobile industry face up to this problem from a monetary standpoint. Last year, I believe it was "Spot"—and we call him affectionately "Spot"—made an exhaustive study of the defective construction of an automobile which was involved in a lawsuit. In South Carolina generally we have small verdicts, but this is a man responsible for getting a verdict of almost a million dollars against an automobile manufacturer because of a defect so far as the safety construction of an automobile.

He is not only going to talk about it, but he knows from firsthand experience that he can make them pay if they don't do the job right.

The CHAIRMAN. That is certainly a fine introduction.

#### STATEMENT OF HON. JAMES P. MOZINGO III, STATE SENATOR, STATE OF SOUTH CAROLINA

Mr. MOZINGO. I will be very brief, Mr. Chairman. As Mr. Watson has so kindly said about me, I am usually sitting on the side where you gentlemen are this morning and I don't have a prepared speech. There will be no use for me to try to count the remaining pages I have left.



However, I would forewarn you that my mother once said that I had an impediment in my speech, that I couldn't listen.

I got into this legislative situation back when I was 20 years old. I wasn't old enough to vote for myself and it is doubtful I would have, if I had been as conscientious then as I am now. But it was about the only job open during the depression, so in 1934 I ran for the State legislature and the people have been very good to me. I have been there ever since.

I am better qualified, I feel, to speak, however, on a reapportionment right now than any other subject. We have been wrestling with that.

However, I have been chairman of the education committee and chairman of the highways committee, and vice chairman of the finance committee.

As far as my technical knowledge is concerned, I don't have a great deal of it and I want to say this in the beginning, that although I have been involved in one of these, I am very humble when I sit with these gentlemen like Senator Speno and those who have done so much in this. And the Congressman from Georgia, who has made such a study with the rest of you gentlemen.

I have had the pleasure one time, on one occasion, of going up to Congressman Kornegay's sister State, in Ashville, N.C., and as we proceeded there through the mountains, a great many years ago, I got lost and got off the trail a little. As I did, in order to find my way back I stopped and saw an old fellow sitting by the roadside and asked him if he knew the way to Ashville. He didn't comment as a lot of North Carolinians won't, sometimes. He had a jug sitting there with him and he looked around at me and he said, "Have a drink."

I said, "I don't believe I care for a drink." He said, "Have a drink." I looked again and there was a double-barreled shotgun and I was looking right down. I said, "I have been wanting a drink for some time. You evidently misunderstood me."

So with that, I took the jug, took the drink, I shook, shivered, quaked, muttered and a few other things, and I said, "By God, that is awful." He said, "It sure is. Now hold the gun on me while I take one."

I didn't come here this morning to hold a gun on anyone but only in the full spirit of cooperation among all of us.

I was sorry to hear Mr. O'Brien talk about retiring. Of course, most of you Congressmen are a great deal younger than I am.

The first automobile that I had any knowledge of, I was thinking this morning, was the old T-model Ford. I remember that each one of them was sort of eccentric in its own way. I was raised on a farm and the first thing you would do was to get a bucket of hot water to pour on the motor to thaw it out a little bit in the wintertime. You would pull out the choke on it before they had the self-starter and some of them you choked twice when you cranked them.

Then if you had a different type, you would choke it twice and crank it once. Then it would start up and nudge you like a horse nudging you looking for an apple in your pocket. Then you would try to hold it and run around to the door and try to stop it before it got away from you.

I was thinking about the competition between Ford and General Motors, and I thought about the fact that when you pushed the gas

and spark all the way up, it would sort of chug a little bit. You would say, "Listen to the Cadillac." I am sure if that ever got back to Mr. Henry, he would be very mad about comparing his to Mr. Cadillac.

The only danger you had in those day was having it kick you and break your arm. You didn't have the good roads that you gentlemen have provided, and those things, where you could get enough speed to get hurt. You might have gotten run over or your arm broken. But those things have changed and I am not proud today to come from a State that has one of the highest death rates in the Nation, because it has bothered us.

I began to give a lot of thought to it because it was one thing I couldn't understand. I come from a very small town, about 5,500 or 6,000 people, and we have a race track there for stock car racing. I was never particularly an enthusiast but I have gone out to see a good many of them. I couldn't understand how those fellows in automobiles would hit each other at the rate of 100 or 125 miles per hour, crash up against a concrete wall, turn over a dozen times, and take it all in stride.

I began to ask a lot of questions about it and I found, of course, they had a special type of harness, they had a special type of roll bar built in the car, they had also, in the glass situation, that they would take the glass out, which wouldn't be too practical in this. But they had a different type of automobile from what was being offered the general public and what we were riding in.

Therefore, I thought some improvements could be made in this. I didn't know who was doing it at the time, but I was certainly interested because I thought that coming from a State that had a high death rate and having been president, one time, of the American Trial Lawyers Association, and other legal fraternities, I have seen at firsthand where girls and boys come in with their arms and legs off and I thought something ought to be done about it.

Then I heard of Senator Speno and the work that he was doing in New York. Later, as Congressman Watson said, I tried a case of design, and I was appalled at the testimony that all tended to show in each answer that you got, "Well, of course that would be safer, but the public wouldn't buy it. You have to have a car that looks good."

That was the theme song and that was the thing that our country jurors disagreed about. They thought that life was more important than looks, and that arms and legs of the young people were more important than the machine and steel that was coming out from Detroit, and that something ought to be done about it.

So I joined with the senator and these other gentlemen from the neighboring provinces of Canada, and I am proud this morning that we can sit here with no party.

He is a Republican and I am a Democrat; he is a northerner and I am a southerner, but there is one thing, when you look at that flag, America draws us all into her heart and we are all one people.

Death knows no party and knows no section of living.

I want to say in South Carolina we are willing to help on any basis that we can, by appropriation or anything else, in the work that you



gentlemen are doing. I am here in a spirit of cooperation and I offer my services for whatever they may be worth.

I appreciate so much your taking the time to hear me. Thank you.

Mr. SPENO. After that, how will you top that?

Senator, thank you very much.

I tried to keep this within an hour, Mr. Chairman, knowing the limitations and having presided myself in a number of similar types of hearings. We have a couple of technicians here. They are not speechmakers. I keep telling them that. You can say that to staff.

John Moore, however, was the director of the first Cornell crash program that laid the cornerstone for much of the research that has developed, certainly for us on the seat belts and subsequently, some work we did in tire legislation.

John, I think just to answer a couple of questions, would you tell the committee in your judgment as an expert, head of our research department in the State of New York, the feasibility of accomplishing what we have all said here this morning?

**STATEMENT OF JOHN MOORE, DIRECTOR, DIVISION OF RESEARCH  
AND DEVELOPMENT, NEW YORK STATE DEPARTMENT OF  
MOTOR VEHICLES, ALBANY, N.Y.**

Mr. MOORE. Senator Speno and Mr. Chairman, I am John Moore, director of research for the Department of Motor Vehicles for the State of New York. I have spent approximately 25 years of my life as a scientist dealing with the man-machine equation both in aviation and in surface transportation. I believe that we are able to answer a question that we are truly concerned with human injury and life, not just accidents per se.

I think it is a well-established fact that accidents, per se, in and of themselves, do not produce injuries or death. If they did, every accident would kill or injure someone, and we can thank the Lord that this is not true. Injury and death is a traumatic disease. It is a product of the biological collision with a structure that a man designs and puts ahead of a human. If a man designs it, a man can change it.

There is a body of knowledge in existence today which would allow us to alter the risk rate of human injury and death in our essential use of the transportation device we call the automobile.

I believe, however, that no progress can be made on a decision to change the design of this vehicle until we have conclusive evidence that can only come from the generation of a test-bed and a fleet of vehicles which have been adequately constructed and adequately tested.

I think the problem that you are facing here is who is going to set the standards. We all agree that something must be done, but how are we going to do it?

I would commend to your suggestion, or for your consideration, the support of what we are attempting to do in New York with New York State funds. We have, in behalf of the citizens of New York, with the senator's leadership, engaged a major scientific aerospace firm to answer for us in an orderly fashion the questions of the feasibility of designing a vehicle from an engineering point of view and the feasibility of producing it from an economic point of view.

This document is being offered to you as part of your record. It is an interim report of our first stages of activity. I believe we are, in New York, equipped with the scientific apparatus to execute this, and we do need your support to continue it. I think until this approach is exhausted, there will be nothing but continuous argument as to who knows what needs to be done, and what is his authority for making the suggestion.

I suggest that the construction of a fleet of these prototype safety vehicles, as we are now moving toward, would be a means of Federal and State partnership in behalf and serving the interest of all of us.

I would suggest that until such is done, there can be only your opinion or my opinion as to the order and priority of change. I believe in view of the seriousness of this national problem we need something better than my opinion or your opinion, as expert as I concede you to be. I think the way to go about it is the way we are orderly approaching it in New York, and we hope you will see fit to provide amendments to the bill before you that will allow us to enjoy your partnership and financial support to continue with what we have already started with public moneys in the State of New York.

(Mr. Moore's prepared statement follows:)

STATEMENT OF JOHN O. MOORE, DIRECTOR OF RESEARCH AND DEVELOPMENT,  
DEPARTMENT OF MOTOR VEHICLES, STATE OF NEW YORK

Mr. Chairman, Members of the Committee on Interstate and Foreign Commerce of the United States House of Representatives, distinguished guests.

I am John O. Moore, Director of Research and Development of the Department of Motor Vehicles of the State of New York. I am extremely privileged to be invited to testify before your Committee in its deliberations on the highway safety proposals submitted by the President of the United States. I have been an active researcher in road safety research for more than 25 years. A decade ago I participated as special consultant to the Subcommittee on Health and Safety of the House of Representatives. I appeared before the Committee on Commerce to testify in favor of HR 1341, the first time hearings were held on the subject of Federal regulation of the automobile.

It is significant, I think, that New York State Senator Edward J. Speno is one of the moving forces behind my presence here today. It was a measure of the Senator's commitment to the promotion of road safety when, following our discussion of accident and injury prevention and our differences of approach, he asked me to deliver my observations to this committee.

You are considering legislative action on behalf of the safe transport of humans on a major scale and with a scope that has never before been proposed. I am one of the many witnesses which your Committee has heard or will hear who are convinced that now is the time to implement road safety measures with legislative mandates based upon knowledge which exists and bears upon the problem of reducing injury and death in automobile accidents. I believe it necessary, before I become specific in my recommendations, to raise some fundamental questions.

I would ask: What are you, and what is the President truly concerned with? Are you and he concerned with property damage associated with automobile accidents or are you concerned with human injury and death? It may appear that these are inseparable concerns. But I know that this confusion of the accident problem has hampered progress in accident injury control for more than 20 years. The truth is simply this: automobile accidents "per se" do not, themselves, produce human injury and death.

Injury or death or, more generally, trauma is produced in a human being when:

1. he collides with a vehicle component as he decelerates within the vehicle, or
2. he collides with some environmental element if he is ejected from the vehicle or,
3. as a pedestrian, he is struck by a vehicle component.



Now, if your concern is primarily to reduce the public's risk of injury and death in automobile accidents, then development of vehicle design and equipment directed at dissipating the vehicle occupant's energy of crash-induced motion with tolerable stress promises a substantial and reasonably immediate benefit \* \* \* and research findings exist which would support design and equipment development at this moment.

If, however, your and the President's aim is the elimination of automobile accidents, in toto, then I suggest that unborn generations will experience death and injury in automobiles. I am not here to frighten you but rather to excite you to action.

Some of government's effort in accident death and injury prevention must be through legislatively mandated control of the vehicle and I will tell you why. Accident research literature amply documents the relationship between the vehicle's interior design elements and the injuries associated with them. I have examined accident data which showed that when a manufacturer eliminated a cigarette lighter from one location on the dash panel in his styling changes between model years, a patterned series of passenger head and facial injuries was eliminated. Then in a succeeding styling change, the cigarette lighter was repositioned in that critical zone of the dash and a pattern of head and facial injuries appeared again. Currently, the only rationale for most vehicle design changes is the designer's evaluation of aesthetic, sales, and manufacturing cost benefits. The injury potential of vehicle components should be another and the paramount criterion for evaluating vehicle designs. Only legislative mandate that vehicle components must meet vehicle crash performance standards will afford adequate assurance of this and prevent quixotic design modifications intended merely to support an illusion of vehicle improvement.

New York State legislative and executive action in this field demonstrates the approach I recommend. Based upon substantial research evidence of the efficacy of seat belts, Senator Speno promoted seat belt legislation to the end that, beginning in 1961, the Legislature successively required by statute in successive model years that new vehicles be equipped with front seat anchor devices, front seat belts, rear seat anchor devices, and rear seat belts. Performance standards for this equipment were defined by statute and regulation without prescribing their design. Since the 1963 models which were the first to be subject to seat belt regulation, passenger car sales have shown healthy growth from year to year in New York State. This has exploded the myth that crash injury protection would interfere with vehicle popularity and marketability.

We are the first governmental jurisdiction to regulate the performance of automotive brake linings offered for sale to the public based upon a law passed in 1965. Again, laboratory and vehicle performance test data are the basis of the performance standard which I have written.

There is no question that the present state of the art of automotive accident and crash injury research is *inadequate* to provide answers to many pressing questions which legislative and regulatory bodies are faced with. Recognizing this, Senator Speno again pointed out legislative direction with the result that the New York State Legislature approved the Safety Car Project last year and appropriated \$100,000 to support the initial phase. On February 1, 1966, the Legislature received an affirmative reply to its primary question: "Is it feasible to design and build a passenger vehicle with significantly greater safety reliability than present cars?" With approval of the second phase of the study imminent, Senator Speno and I elected to present the case for the Safety Car Project to this Committee.

Our intent is to carry the project to this conclusion: to design and construct a number of cars embodying new accident and injury prevention features. These vehicles will be road tested and ultimately crash tested as the acid test of the efficacy of their safety-oriented design. The test data will represent a totally new kind of information. These test cars will have been designed with vehicle safety as the primary consideration and represent the ultimate safety cars which are feasible with current technology. Their road and crash test performance will be reference points with which conventional vehicles can be evaluated for their levels of safety performance. The vehicle safety performance standards which Federal and state governments must generate—and soon—can only come from this project or another like it. The Senator and I recognize that the total project will demand more financial support than New York State's resources can provide if the project is to adequately serve this most pressing need of government. At the same time, I hope that you will agree that the project's results would benefit the Federal and state's governments by providing the standards

which they will require for the promotion of highway safety from the point of view of vehicle control. I respectfully request this Committee to consider the merits of this program and the potential utility of its objectives to government automotive regulatory responsibility. The Committee's support would afford great promise for an expeditious and successful conclusion.

Thank you.

Mr. SPENO. Mr. Chairman, that concludes our formal presentation. I think this is the first time in the history of Congress that a joint legislative committee of State legislators and another nation have presented a case of this kind. I hope that you share with me the importance of this occasion, that we can join, as Senator Mozingo so ably put it, in this common effort and cross many lines, physical and political, to make this presentation.

We are privileged to have had the opportunity.

The CHAIRMAN. I would like to say to you, Senator Speno, that this is unique. I am sorry that I did not get to hear all of it. What I have heard has been very impressive to me. I think that this kind of an assemblage, where we have the views from the different parts of the country, all coordinated, is very helpful.

I am certain that I will read all of the testimony with great interest.

The gentlemen that I did hear I enjoyed very much, the State senator from South Carolina and the representative from our neighboring nation of Canada.

As we all know, Canada and the United States are not just friends but a lot closer than that. We are really members of the family. I think we all consider that to be.

I would like to ask you if David Groos is still a Member of Parliament in Canada.

Mr. GRAFFTEY. Yes, he is, sir, the Federal Parliament.

The CHAIRMAN. We are deeply indebted to you gentlemen for bringing us your views this morning. I might say the senator from South Carolina presented a little touch of levity to something that is so serious, and he acknowledged that it is serious, and it does go beyond State bounds, it goes beyond any political boundary or party. It just happens; it hits our family or someone close to us, and then it brings it home.

It knows no barrier. The international flavor shows us it is an international problem.

We appreciate the compliments you have given to our country in taking the leadership in many fields. We hope and pray that we can take the leadership in this field, too. We hope we can. With the 33 members of this committee and their wisdom, I am sure we will do a pretty good job.

Mr. Macdonald?

Mr. MACDONALD. First of all, I would like to congratulate all of you gentlemen for coming here and testifying before us. It obviously proves that it is a great national problem. I am also very delighted to see Senator Speno and Mr. Moore, who I know have been very active in this field.

Actually, I had my first encounter with the automotive people this week, and getting them to try to give you a direct answer is very difficult as I am sure you know.

One of the themes that has run through the testimony which has been given by you gentlemen, I think, is one that the automotive in-



dustry always draws the veil of secrecy over its operations. As a matter of fact, a direct answer to a question put by me to Mr. John Bugas was not available. Mr. Bugas told me an untruth. When I asked him the comparison of how much was spent in styling for the various companies as compared to what they put into research for safety, he said, and I quote him, I think, practically verbatim, "This is of the highest secrecy, to be kept from our competitors."

I didn't press him because I didn't want to make a Federal case out of it. I thought perhaps we could get the information some other way. But I was very irritated when I found out that after that meeting—and I know I am going to urge the chairman of our full committee and subcommittee to discuss it and to recall Mr. Bugas—I found out that before a committee of the Senate, the Committee on the Judiciary of the U.S. Senate, representatives of the Ford Motor Co., the Chrysler Corp., and General Motors testified, even though he told me it is of the highest secrecy and could not be given to this committee—not he, because he did not testify before that committee—they testified collectively that they spent over \$1 billion a year, and this is the language of the report, they spent collectively \$1 billion a year to convince buyers that last year's car models were obsolete.

This obviously went to styling. At the same time, Mr. Bugas told me that they spent in the neighborhood of \$138 million a year in the general field that was related to safety research.

It seems to me to be an absolute disgrace for that proportion of spending, to spend \$1 billion in the monopoly that they have to change the styling of a car, and to spend only \$138 million for research in safety.

I think, No. 1, that that should be looked into. I don't think that they should be given the privilege of saying that is a trade secret, and, therefore, should not be made available to us or to you people who are looking into the safety factor.

In the second instance, I would like to get Mr. Bugas back here to find out by what reason he feels that it is all right for the industry to testify before a Senate Committee on the Judiciary, which I guess was dealing with antitrust aspects and, therefore, perhaps has a little more leverage over the industry than does a Committee on Interstate and Foreign Commerce that deals with safety. I would like to get him back here and ask him, since he said it had been the custom and the practice of the industry not to do it, to have him try to explain why he refused to answer the exact same question to this committee that was answered to a Senate committee.

In conclusion, I was interested, Senator Speno, to see that you had met with this veil of secrecy when you had made similar inquiries, and I don't believe that this monopolistic industry should hold themselves above either State law, or the Federal law.

(The following letter was subsequently received from Mr. Bugas:)

FORD MOTOR CO.  
Dearborn, Mich., May 2, 1966.

HON. HARLEY O. STAGGERS,  
Chairman, Interstate and Foreign Commerce Committee, U.S. House of Representatives, Rayburn Building, Washington, D.C.

DEAR CHAIRMAN STAGGERS: I have been advised that a misunderstanding has developed since the automobile industry's appearance before the Committee on Interstate and Foreign Commerce, U.S. House of Representatives, on April 26.

On that date, Mr. Macdonald's questions to me included: "... How much does Ford spend a year in forming the design or fashion lines for the oncoming year in any given year?" and "How much did you spend on new design and fashion, colors, et cetera?" During the proceedings of the same committee on April 28, I understand Congress Macdonald stated that "Mr. Bugas told me an untruth. When I asked him the comparison of how much was spent in styling for the various companies as compared to what they put into research for safety, he said, and I quote him, I think, practically verbatim, 'This is of the highest secrecy, to be kept from our competitors.'"

Further, I have been advised that during the course of his statement, Mr. Macdonald mentioned that representatives of Ford, Chrysler, and General Motors had testified earlier before a Senate subcommittee that they had "spent collectively \$1 billion a year to convince buyers that last year's car models were obsolete." Mr. Macdonald then compared the \$1 billion with a figure of \$138 million, which was the amount I stated in my testimony that Ford Motor Co. spent on matters related to safety in 1965. Mr. Macdonald reportedly then added, "It seems to me to be an absolute disgrace for that proportion of spending, to spend \$1 billion in the monopoly that they have to change the styling of a car, and yet to spend only \$138 million to research in safety."

I should like to furnish the following information to your committee and to make the record perfectly clear with respect to prior industry statements.

The record of the testimony before the Senate subcommittee in 1958 indicates that the figures that were submitted on the cost of bringing out new models represented a "very rough figure" in one company's case, an "average of the last four years" figure for the second company, and an "in the order of" figure for the third company. These total outlays of "\$1 billion" for new-model programs of the various companies included, in addition to the cost of special tools relating to appearance or styling changes on new-model passenger cars, expenditures for facilities required for new models, for plant rearrangement, and for special tools related to functional components of passenger cars such as engines, transmissions, steering mechanisms, brakes, locks, door and window regulators, suspension systems, lighting systems, et cetera.

The total of such costs is affected by many factors unrelated to the degree of styling change, and it is therefore misleading to relate the \$1 billion mentioned solely to "styling." For example, the degree of change in mechanical components to effect product improvements, and the anticipated production volumes of the car lines—both of which are unrelated to "styling"—exert a significant influence on the total expenditures.

It should also be noted that Mr. Macdonald compared aggregate expenditures for new models for the three large producers with expenditures for safety by only one company—Ford. Actually, expenditures for safety as reported to a Senate subcommittee in 1965 by Chrysler, Ford, and General Motors exceeded \$400 million. American Motors Corporation was not requested to furnish such information to the Senate subcommittee and, therefore, its expenditures are not included in the \$400 million total; however, I have been advised that its expenditures for safety were proportionate to those of the other companies. Further, these expenditures cited did not include certain fixed costs associated with facilities, equipment, and special tooling related to safety.

My statement before your committee that information relating to Mr. Macdonald's question about the cost of "styling" being a closely guarded secret is absolutely true. Information in each company on specific current and future car lines is highly confidential and is always treated as such. In the 1958 Senate hearings, the Chrysler representative indicated that such information was confidential.

One item, however, which is made public by each of the automobile manufacturers is the total expenditures for special tools. These figures cover worldwide expenditures for special tools and include all product lines. For example, the annual reports for 1965 show that General Motors spent nearly \$730 million for special tools, Ford spent \$367 million, and Chrysler spent \$157 million. The figure for American Motors is \$28 million.

I emphasize that these amounts represent the *total* special tool expenditures for each of the companies' *worldwide* activities and for *all of their product lines*—passenger cars and, where applicable, trucks, buses, tractors, diesel engines, locomotives, industrial motors, off-highway earth-moving equipment, aircraft engines, household appliances, defense products, and parts and acces-



sories. Also, since the amount represents expenditures made in the 1965 calendar year, the total includes special tooling expenditures for current products and for forward programs.

I should like to point out that a significant portion of the expenditure for tools is related to safety. As I stated before your committee, the safety of a car depends fundamentally on the proper function and operation of almost every part and, therefore, it is impossible to segregate completely the expenditures for safety.

My associates and I regret that there apparently has been a misunderstanding on this subject, and hope this letter will clarify the matter. It is respectfully requested that this information be made a part of the record of the hearing on this subject.

Sincerely yours,

JOHN S. BUGAS,

*Chairman, Safety Administrative Committee.*

Mr. MACDONALD. I hope that all of you take back to your States and to your Provincial governments in Canada the fact that there are many Members here in Congress that share your grave concern with both the slaughter on the highways and the attitudes of that industry toward people who deal in government.

Mr. SPENO. Congressmen and Mr. Chairman, by way of brief response, I would like to point out what we did in New York, with \$100,000, we made a matter of public art in the automobile design and public property over 138 basic changes toward making a car safer, and we did it with a mere \$100,000.

Just think what we can do together in public funding of basic research toward designing an automobile. This is the crux of what we are saying.

Our committee went out to Detroit, 14 members, and they showed us the ballpark and the beautiful buildings, but they didn't open any of the doors. They said research was going on there. They wouldn't tell us what or why. We discovered they had been testing the seat belt for 10 years but wouldn't put it into the car because they said the public wouldn't use it, that there would be a psychological aversion to seat belts, that it would make the car appear too dangerous and affect sales.

This is basic in their approach. We have to prod them into doing more than they have done.

Mr. MACDONALD. Thank you, Mr. Chairman.

Mr. KATZ. I would like to comment that the expenditure of money is an important criterion, but the quality of their work is equally deficient. The work that has been significant in terms of auto design and the safety aspects has really been done by people outside the industry.

For example, Dr. Paul Gikas did a monumental study in Ann Arbor, isolating the factors in an automobile causing accident injury and death.

I want to point out that it is not only the amount of money but they have not really turned out any good work in the field that is available to anyone. They use the argument of confidentiality which really prevents anyone in the field from trying to critically appraise the work they have done.

Mr. MOZINGO. Congressman Macdonald, the hearing you were reading from, where was that hearing?

Mr. MACDONALD. This was a hearing before the Senate Committee on the Judiciary. It was in the 85th Congress, the 2d session. The

title of it is "Administered Prices of Automobiles." What I quoted from was the report of the Subcommittee on Antitrust and Monopoly, pursuant to Senate Resolution 321. It is a study of administered prices in the automobile industry.

Mr. GRAFFTEY. Mr. Macdonald, could I relate a brief experience I have had with the industry in meeting with one of the presidents of the industry of Canada? I listed about 20 features with him that I thought should be in automobiles today and the standard reply I got from the president and the senior executive was, "we don't know if this is a safety feature. We have no proof of that. We don't think so. This hasn't been proved out."

We can't fool around any longer. It has to be a safety car built with public funds, where we can tell the public that it is a safe car.

If you go to them with what are obvious safety features, their reply is that we have not proved it out. That is why I think the New York State car having made the only beginning, the sooner we can get it completed and built, the better, so the code drafters can have this data on which to base their conclusions and draft their regulations.

Mr. SPENO. Mr. Chairman, in conclusion, what we are asking for here is that you seriously consider an amendment to President Johnson's traffic safety bill.

There is within the intent and actually the language of the bill you have sponsored and Senator Magnuson sponsored, I believe, in the presented administration program, the concept of research and grants for traffic safety development in broad areas of licensing, road planning. We are only talking about one aspect of it.

The title that involves this subject appropriates only \$3 million. Senator Ribicoff has suggested tripling that to \$15 million. We are asking for \$4 to \$5 million, preferably \$5 million, to build 10 to 15 prototypes, to come up with standards that you would mandate by law through one department or another.

This is our proposal to you, that one or all of you consider multi-sponsoring an amendment to the President's program that would encompass this project.

The CHAIRMAN. Mr. Younger?

Mr. YOUNGER. Thank you, Mr. Chairman.

This has been a very constructive panel, I assure you.

I would first like to ask Mr. Grafftey this question: You mentioned about the proven safety features. You don't mention all of them in detail, but would you furnish them to the committee in detail so that we will have them in the record?

Mr. GRAFFTEY. Surely.

(The information requested, when supplied, will be found in the committee files.)

Mr. YOUNGER. One other problem that faces the committee, as all of you legislators know, is just how we are going to develop this. It has been proposed that in setting forth the standards, after arriving at the standards, that they call the State people in, that the States would be made a part of the program, which strikes me as something that is necessary because, after all, up to this point the States probably have done more in safety, naturally, because in the driver licensing and motor vehicle examination pertaining to safety has been in the hand of the States. It has not been a Federal program.



While I admit we do not have the real statistics that we should have, which should have been gathered before, on which to legislate intelligently, we have to do the best we can.

Are all of you agreed that the States should be brought in on whatever is done on the Federal level?

Mr. SPENO. Yes. I will try to speak for all of us. We have not reached a definite conclusion. It is a question about who you mean when you speak of the States.

Mr. YOUNGER. The legislatures.

Mr. SPENO. Fine. Because I think heretofore we have unwisely delegated a lot of our responsibility, but when you are talking about legislatures, fine. We want to share with you the same responsibility. I think we are in accord on that, gentlemen.

Mr. KATZ. I have the feeling that the State legislatures should be heard, but I do have the feeling that it would not make sense to have varying standards in the 50 States when you are talking about design. So my own feeling is that the States ought to be heard but that the Federal Government ought to be the one to make the decision as far as design standards.

Mr. YOUNGER. That is true, but the States have a lot of experience, not only New York, but Pennsylvania, as the evidence has shown, and California. They have had experience in some of these fields which they could bring to the committee.

The other question is this: It has been proposed that the licensing of drivers ought to be made a Federal program and taken out of the States' hands. What is your feeling on that question?

Mr. SPENO. I suppose all of us would have a separate point of view on that. There is the question of administration on a nationwide basis which presents initially, to my mind, a very serious problem. Regulation in the fees that are a part of regulation are jealously guarded by local States and communities, county clerks, and so forth. You would be invading a province that heretofore they have enjoyed.

I think there ought to be uniformity in the method of licensure, the type of licensure, the testing for licensure. This would make real sense. But for the Federal Government to go into the police powers of the local States that have exercised this power over the years would be questionable, in my judgment.

Setting a uniformity of licensing, yes, but actually regulating the licensing I think we ought to go slowly on.

Mr. KATZ. In addition, the maintenance of records on a national basis would be highly desirable.

Mr. SPENO. For accident statistics?

Mr. KATZ. And for licensing, so that one State would know that a driver had come from another State and had had his license revoked in another State.

Mr. GRAFFTEY. Mr. Younger, in your first question directed to me, I can now state that we have put into the record, prepared by the New York project, a detailed list of increased costs per unit. I think it is correct to say that it is a complete list, of the features and their costs.

Mr. MOZINGO. On relicensing, we have gone back there to relicensing people with certain offenses. We have had a good deal of success through school programs and through industrial plants, requiring them to upgrade their licensing.

Mr. MACDONALD (presiding). Mr. Friedel?

Mr. FRIEDEL. I am sorry I didn't hear all of the testimony today, but I notice in section 2, page 3, an item that I want to lead up to.

In the audience is Mr. Ken Roberts, the former chairman of our traffic safety committee. I might say that we went out to the four major automobile plants for a tremendous demonstration 10 years ago on traffic safety research.

I was asking them then about rear window wipers. I seem to get laughed at when I mention them. But I am glad to note in section 2, page 3, of the feasibility study of the New York State safety car program. You state that snow or frost on the rear window becomes a safety problem.

Mr. YOUNG. This, Mr. Chairman, is very important to us in the northern part of our Province particularly, because we have a great deal of problem with visibility during the cold weather and the fogging of rear windows particularly.

Mr. FRIEDEL. I think it is very important in Maryland, Washington, or wherever you go. A rear window wiper is something that I think should be there, whether it is standard or not.

Mr. MACDONALD. Mr. Watson?

Mr. WATSON. No questions.

Mr. MACDONALD. Mr. O'Brien?

Mr. O'BRIEN. Mr. Chairman, very briefly, I think sometimes we give the impression that we think the automobile industry is out to get people, that they want to kill people. My impression from the testimony this morning is that their big fault is that they underrate the intelligence of the American driver. They start out with the idea that collectively he is a boob. One of the witnesses mentioned the seat belts. I know what Ken Roberts went through with the seat belts—10 years. I heard someone mention that that would instill fear. I have eight grandchildren and we have seat belts now. They slip into them just as naturally. I am the one that hesitates because I was not used to them when I was younger. I think if they would believe that the American people are as interested, at least as interested, in safety, as in style, we could have a meeting of the minds with the industry.

I was interested in that car. I know it has not been built yet. Would there be room in such a car for a difference in styling?

Mr. SPENO. Yes, Congressman. We have asked that question, and Mr. Moore has asked that question, of the designers. What we are talking about are some basic built-in concepts that would permit the rating, the crash rating, of the automobile. The looks of it could be changed to meet the needs of status symbols of our society, the youth, the old, and so forth. We are told they could be.

Mr. O'BRIEN. In other words, you would not destroy styling by safety?

Mr. SPENO. You would not have just one car.

Mr. O'BRIEN. You would not deal away with competition that goes with styling and so forth.

Mr. SPENO. No, sir.

Mr. O'BRIEN. I was interested in the cost, and there, again, of course, you don't have the exact figures. I think the gentleman from Canada mentioned that perhaps there is \$100 difference.



Mr. GRAFFTEY. I would say without any further research being done at all, things that are patently obvious in terms of safety features, could be put in cars today that are not in. Twenty to twenty-five features could be put in cars today that are not in there today without any further research with an average cost per model of about \$100 per unit.

Mr. O'BRIEN. A little less than installing the fancy optional equipment that we have?

Mr. GRAFFTEY. Absolutely, Mr. O'Brien.

Mr. O'BRIEN. Thank you, Mr. Chairman.

Mr. MACDONALD. Mr. Moss.

Mr. Moss. Mr. Chairman, I want to express my appreciation to each member of the panel. I think their presence here underscores the fact that we are dealing with a serious national and international problem, one which imposes on each of us, whether we sit as members of the U.S. Congress, or of the legislature of a State, the Federal Parliament of Canada, or the Provincial parliament, that we have a responsibility to act, and we must point forward.

We had no real safety in railroads until the Federal Government exercised its powers over an industry that was not responsive to the demands of safety.

Here in the United States we have over \$280 million committed to a supersonic transport plane. It is an objective I fully support. We have pending an additional request for \$280 million more to further the development of that plane. It is going to move people faster between two points. It is exciting and challenging. But we are talking here of an expenditure that might help in eliminating needless death or human destruction, the destruction of important resources to all of us. I think we should with great care consider the request that has been made to participate in the design, the furtherance of the design, the construction, and testing of the prototype automobile. I am not fearful that we will be unable to have beauty and safety. As a matter of fact, after looking at some of the strange models that have come out in recent years, I wonder how much beauty we have achieved in this race in Detroit. I recognize we are dealing with an extremely sensitive industry, one which forms an important foundation to much of the economy of this Nation.

I don't know how accurate the statistics are in those areas. I am concerned over the need here in the United States for some understanding as to how we can best achieve a partnership, a meaningful partnership, between the States and the Federal Government as we embark on this effort.

Senator, you have had a considerable role in the leadership in the great State of New York in determining the appropriate role of the State. You now urge that the Federal Government become more active. What types of limits would you impose? Is it possible to jointly occupy this area, or is it one where, of necessity, we must preempt at least for minimum standards?

Mr. SPENO. I think this is an area where we can do it together. I think once, as historically in our Nation, the Federal Government has spoken and entered in a positive way, of course, that will preclude for all practical purposes a State from doing otherwise, except raising the

level. This bill could change one word. It limits the preemption at a higher level by the State, it exempts that provision, in terms of procurement of equipment for State agencies. It seems to me that the door ought to always be left open for State initiative. That is what we are talking about. And State research, State progress in any legislative area, whether it is public health, safety, education or any other area. I think that we are moving into an era in our history where there has to be—as the chairman said before he left—more of this kind of sharing. We come down here now for the funds to do so much and with it comes a great deal of control, which I fear, and I will be honest to say so. But I think if we are communicating as we are today, and working together, it may be that we should set up a national legislative committee of State and Federal legislators to move forward in these areas of joint interest. That is just off the top of my head but I believe that is a possibility.

Mr. MOSS. Let's take a specific area, that of licensing of drivers. The standards applied in the United States run the broad spectrum from excellent to very poor or virtually nonexistent. Should we have Federal minimum standards which would be met by all States in the licensing of drivers? Should we have Federal minimum standards to which all States would subscribe in the licensing of drivers?

Mr. MOORE. As a member of the panel from an administrative or regulatory agency, perhaps I could comment. I believe that it would be in the public interest for the Federal Government to have minimum standards but not preclude a State that desires to be above that for its own protection. If this were the case, you would take out of local political partisanship the mechanism. I think the Federal Government could offer its leadership in setting the minimum plateau below which none can go. As we have done in other areas, we have set performance standards.

Mr. SPENO. Isn't the answer that there could be a minimum Federal standard?

Mr. MOORE. Yes.

Mr. SPENO. But it would have to be only a minimum floor because several of your States, for instance, Senator Mozingo's State and the State of California, present different conditions for driving where local administrators might exact a higher ability to drive. Some of the country roads might require a higher standard and the Federal Government would not be competent to set that standard. But the minimum floor, yes.

Mr. MOSS. We have to recognize the fact of the increasing mobility of the American motorist. He may be in New York today and out on the west coast next week. He has traveled through quite a number of States. He may have moved north and through some of the Provinces of Canada, with the new trans-Canadian highway. So the impact he has as he moves into these areas where he is not familiar imposes an additional burden on us if we are to insure that the driver is in fact a safe and a competent driver.

Mr. SPENO. Congressman, I think we should make one distinction here, you and our panel here as legislators. In one area we are talking about our responsibility as legislators. I want to make that clear. I am not talking about a compact. I am talking about my responsibility



as an elected official and yours to meet this problem. Here we are talking about lawmaking. There is a sensitive line when you get into administration, when you are talking about much of this to be handled on an administrative level. Here I think the President's program must build up a reservoir of thinking and knowledge through this research center and other studies that will be done to develop a pattern here for these administrators. But I think we have to be sensitive to our responsibility as legislators and never delegate this way.

That is what I am talking about.

Mr. Moss. I am very jealous of the role of the legislator. I have occupied both in my State and now in the Nation. I assure you I think I speak the consensus of the overwhelming majority of the Congress when I say we don't seek the opportunities to broaden our horizons. Frequently we resist, as long as we can, the pleas of the States and of the municipalities before we act to take on more Federal responsibility or occupy a larger part of the area of concern.

Mr. MOZINGO. Congressman, I was interested in your thought and that of the committee in maybe having a joint committee between the States and the Federal Government to go into it a little further, after the building of the prototype car, and we are willing to contribute to that.

I agree it is a problem that faces us all. I don't think we want to get into the situation where, when you walk down the street as a State legislator, and someone says, "What are you doing about the safety of the automobile?"

I would have to say, "That is up to your Congressman. Write to your Congressman." It is something that we all ought to have a hand in. I don't think there would be a great problem with it. We have been working closely together all the time.

Mr. Moss. Again I want to express my appreciation for your appearance. I think your testimony has been most helpful to the record of this committee.

Mr. O'BRIEN (presiding). Mr. Kornegay.

Mr. KORNEGAY. Thank you, Mr. Chairman.

I want to congratulate you gentlemen for coming here and bringing us a most interesting presentation. Certainly the interest and cooperation that has gone on between States and between our country and Canada is something that I didn't know was underfoot. Certainly you all are to be congratulated on it.

My friend from South Carolina made reference to coming to North Carolina. When I saw him come in and knew he was going to testify, I knew he was going to tell a lot, but I didn't know he would go into that.

I think this is a very fascinating situation on this prototype automobile that you have talked about and shown us drawings on.

I don't recall that anybody mentioned the fact of the horsepower of the engine or how large the engine would be. Can you give me information on that? What is the thinking with reference to horsepower?

Mr. SPENO. We have initially not concerned ourselves with the engine, itself. We are talking about the designing of the automobile to safeguard the passenger. This would be another aspect of the re-

search, how heavy the motor, how fast it could be propelled, and so forth.

We are not relating our initial study to the horsepower of the car so much as the safety of the components that surround the people in the car.

Mr. KORNEGAY. But there is, after all, a relationship, on the greater the speed, the greater the impact, and so on?

Mr. SPENO. That would have to be another phase of the study.

Is that a fair statement?

Mr. MOORE. I will suggest, sir, that we will make available to this committee the final version of our feasibility study which will contain documentary data on the power train and the running gear of the two conceptual designs required under our contractual arrangement with our aerospace scientist group.

They are now evaluating whether the power plant should be in the front, the middle, the top, or the rear, and what size it should be, whether or not it will be four-wheel drive or two-wheel drive. These questions will be answered in our first feasibility study.

We will be privileged to submit this document in its final form in June to this committee for its consideration.

Mr. KORNEGAY. Mr. Moore, let me ask you this: Have you come to any conclusion with reference to whether or not horsepower is too great in the present automobiles?

Mr. MOORE. I would hesitate to try to give you a very flat answer, Congressman. I believe that it is essential that we must have enough power at the rear drive wheels of the vehicle to allow us for acceleration necessary for modern-day traffic merging.

I have a feeling that we are now requiring and draining off from the powerplant so much of its capability for operating accessory systems. I don't believe you can have capability of running an automatic transmission with much less than 100 horsepower. But I would not want to condemn horsepower, per se. I think I would feel very comfortable with a car that had evasion capability and performance quality. I would not want to be denied the access to it.

I feel this is a question which can best be resolved by research on the attitudes of people who misuse available capability.

Mr. SPENO. We tried in New York State, Congressman, in some public hearings on this, to determine whether we could legislate a governor on an automobile. I believe that is what you are leading to.

Our best advice was that this might prevent a greater hazard than the problem it was attempting to solve in that you would eliminate the opportunity for the need for greater power in emergency situations.

For instance, putting a governor on a car at 65 miles an hour the present speed limit of our throughway in the State of New York, would mean that if you had to pass in a climbing situation, you wouldn't have the power to do it, the evasion power that Mr. Moore speaks about. Much more study has to be done.

It may well be that the answer to your question lies in somehow making a ratio between the design of the car and the amount of horsepower that the engine underneath the hood can generate for purposes of propelling that car. That would make some sense, perhaps.

Mr. MOORE. I certainly agree that it is sort of uneconomical for me to have 500 horses under the hood of the engine where 90 percent of my



driving is done at 25 to 30 miles per hour in the city of Albany. This is sort of a foolish expenditure of my money, but I don't have much choice. I have to take what they give me. I would like to have a better voice in it.

I believe through our research we can come up with a more profound answer than we can answer you with this morning.

Mr. MACKAY. Art Buchwald wrote a column recently in which he said he favored the underdog and wanted to come to the defense of some of these struggling little corporations like General Motors. Since Mr. Bugas has been charged with telling a deliberate untruth, my recollection is that he declined to state the changeover cost for his company, that this was something they jealously guarded.

I may be in error on that, but I would like to say that in fairness to him.

Senator SPENO, I want to say that in the historical context in which we are, I think the point that you have made about the necessity for Federal-State legislative consultation may transcend the specific subject matter we are discussing, because I don't think the Federal system is crashproof and I think it is going to crash unless Federal-State consultation becomes an absolute part of our governmental operation in this country.

I don't think the Congress should legislate without consultation with State legislatures in many areas. Having served in 15 State legislative sessions before coming to this Congress, I feel more closely associated, really, in my thinking, with the State legislative situation.

I have here 28 questions I am submitting to each witness that appears before this committee. I am not asking the questions in the interest of time. I would like to submit them to the State legislators, particularly who are present this morning, because so much of our hearings have degenerated into a discussion about horsepower and about specific issues. Of course, our problem, as legislators, is to fashion the instrument of the Government that can deal with the total problem.

(The replies, when submitted, will be found in the committee files.)

Mr. MACKAY. There are three questions I want to ask. First, do you believe that this Congress should require the Federal Government to collect data on which we can make hard judgments as to the causes of accidents and the resulting injuries?

Mr. SPENO. I think it is an absolute necessity. Unless you do, you can't predicate any real legislation.

Mr. MACKAY. There have been charges and countercharges yet no one has definitive data. Second, do you think this Congress should require the Federal Government to coordinate research, not to do all of it but to coordinate all research touching on the cause of accidents and resulting injuries?

Mr. SPENO. I don't know whether you ought to require it, but I think you ought to provide the vehicle for making it possible.

Mr. MACKAY. I mean do you agree with the proposition that someone in the U.S. Government ought to be assigned the responsibility of knowing what is going on in this country in this field?

Mr. SPENO. Yes. I think we all agree on that.

Mr. MACKAY. The President's legislation is permissive on both of these crucial points.

Mr. SPENO. I think that is weak.

Mr. MACKAY. It says the Secretary is authorized to do certain things. It would help us if your group should say that the government should do these things.

Mr. SPENO. We testified before the Senate committee and said we favored mandating. I don't like the voluntary approach of letting the industry work it out for a couple of years. I have a healthy respect for the industry. It employs about 17 million people in this United States.

I think it was Mr. O'Brien who referred to the fact that they have taken the attitude they can get away from it, because we buy their cars every year and we have to. But now we are demonstrating some integrity and some courage in this field.

Mr. MACKAY. That gets to the third question. Mr. Bugas said they are ready to come to mandatory safety performance standards without any State or industry agreement to the standards. They said they wanted to be consulted. I didn't know about the VESC. I am embarrassed to say, but I would like some comment about the adequacy of it as being the forum in which we consult with the States. I would prefer to consult with the State legislatures, but would you comment? How does the VESC register with you?

Mr. SPENO. We are afraid that since it was industry suggested and conceived, and is now, in my judgment, oriented toward the industry, although it is made up almost entirely of administrators and their staffs who are well intended, they are not legislators, that the inference is created that the compact has the legal authority to act on behalf of the legislative bodies within their States, which isn't true.

The industry will use it as a device to buffer itself from the State legislators and say, "Mr. Legislator, don't go into this field because you have a commission over here studying it. Wait until they finish." That will delay it another 10 years.

I think what the industry has done is to make it appear as if they want the States to be in this picture, but they are really talking about the compact, which are not the State legislatures at all.

Mr. MACKAY. One final comment. As one who believes that the State is not dead in the Federal system but essential in the Federal system, I want to make this observation: There has been 10 times as much vigor around this table here with representatives of the States than we have found in the executive establishment in Washington since we took this subject up.

Mr. O'BRIEN. Thank you, Mr. Mackay.

Here we have seen the States and Canada able to work together so well, with such agreement on this very vital question, it would be a little difficult for the Federal Government, which is a composite of the States, to stand aside and do nothing.

I want to say for the benefit of the distinguished Senator from South Carolina that I enjoyed your presentations very much.

Senator Speno, I am very proud of you and the fact that you are from my State.

Mr. MOZINGO. Mr. Chairman, to the Congressman from North Carolina, I might say that we are happy to be situated between his State and Mr. Mackay's State of Georgia.



We appreciate the graciousness of your time this morning.

Mr. PETRIS. Mr. Chairman, I wanted to add for the record that California has also looked at the problem of Governors in automobiles. There is a gentleman in Oakland, Calif., by the name of Mr. Demetry, who has developed a national speed control plan based on the system of zones, driving colors, which are identified and applied nationally. I have carried legislation designed to accomplish that in California for several years now without success. There is this fear and apprehension of Governors. It is a system of a mechanical apparatus in the automobile tied to a light system both in the front and back of the car which is matched up with the speed zones on the ground.

That has been almost abandoned, but now I think there will be a renewed interest in it. This gentleman has written to all Members of Congress about this plan and will probably do so again this year.

I wanted that to go into the record that we are looking at that. We haven't completely given up on it. We have just backed away for a while. We will renew our interest in it.

Mr. O'BRIEN. Perhaps from all of this we will find that the public relations people of the automobile industry will one day come out with a slogan that instead of the smartest car on the road they might advertise the safest car on the road. I think they will have a lot of buyers.

The committee will stand in recess until 2 o'clock.

(The following letter with attachments was submitted later by Senator Speno:)

THE SENATE,  
STATE OF NEW YORK,  
Albany, N.Y., May 26, 1966.

HON. HARLEY O. STAGGERS,  
*Chairman, Committee on Interstate and Foreign Commerce,  
Rayburn House Office Building, Washington, D.C.*

DEAR CHAIRMAN STAGGERS: I have delayed writing to you in the hope that I could suggest some definite approach so that leeway for state legislative initiative could be written into the Highway Safety Act of 1966 without lessening the impact of the bill. I am still trying to work out such a suggestion and will communicate with you in the very near future.

I cannot begin to express to you my appreciation for your courtesy, interest and graciousness at the hearing April 28 and for arranging the schedule so that we could present our testimony as a unit. I speak for my legislative colleagues from other states and Canada, all of whom have expressed to me great enthusiasm and appreciation following the hearing.

I believe that the transcript record will be referred to in the future as a source of information and a milestone in the history of highway safety legislation.

Our Legislative Initiative Committee on Highway Safety consists at this point of those who testified with me on April 28 as well as Michigan Senate Majority Leader John Bowman and Iowa House of Representatives Speaker Vincent Steffen. State Senator Stanley Zared of Massachusetts and others have expressed interest in joining us.

Enclosed for your interest is a letter (attachment A) which I sent to Senator Magnuson on May 21, 1966, immediately after I had become aware of the Commerce Department's statement to him.

I do think that the comparative slump in auto sales threaten to confuse the basic life or death nature of what we are accomplishing. I do think the safety issue, with the exception of what happened to the Corvair, was negligible as causation. However, if we had caused the falling off from record-high production and profits it would behoove us to continue doing what we are doing without the slightest cessation of effort. Major industries, particularly the automobile industry as shown by the seat belt history, are not harmed in the long run by necessary safety regulations and improvements.

The safety car prototype is the epitome of what can be done now so that all of us will have freedom of information in the years ahead after the current storm surrounding the safety issue has subsided. I have never in my legislative career become aware of a project which can so focus opinion and belief and mobilize loyalty to an ideal. We do, all of us, believe that the wording of the Ribicoff et al safety amendment is most relevant to the project and its potential. Again may I express my appreciation to you as the result of a most meaningful public hearing. I have received some assurances that the members present of your committee were also enthusiastic. Please let me know what I, my colleagues in the New York State Legislature, or any of our good friends in the many state legislatures can do to assist you in your work.

Very truly yours,

EDWARD J. SPENO.

(Attachment A)

THE SENATE,  
STATE OF NEW YORK,  
Albany, May 21, 1966.

Senator WARREN G. MAGNUSON,  
*Chairman, Committee on Commerce,  
New Senate Office Building, Washington, D.C.*

DEAR SENATOR MAGNUSON: I was greatly disappointed in the Commerce Department on reading a copy of its position paper to you, particularly the section dealing with the Safety Car Prototype Project and the amendment sponsored by Senators Ribicoff, Javits, Kennedy, Harris and Nelson. I hope that this letter may be of assistance to you as you enter the difficult days of decision.

That section in the statement (exhibit A) reflects very well the Detroit point of view, as I know you must be aware. The first paragraph is extremely misleading.

"We do not think it is desirable to create an impression that the federal government will develop prototype vehicles in the sense that they may be imposed upon manufacturers for their use in mass production." The intent, set forth in the amendment, is not that but to provide information for standards. The references later to all automobiles being identical in appearance and performance as a result of the project and to the possibility of 50 states undertaking prototype projects are fallacious.

The department's statement to you adds heavy weight to the proposition that administrative discretion must be minimized if we are to move forward. The preference expressed for an "experimental vehicle program under the authority of section 104 \* \* \*" would mean, we fear, a no-experiment experiment, lacking the independence and objectivity insured by the details of the Ribicoff et al amendment.

The project would be obfuscated and finally lost at the federal level unless it is mandated by the Congress as a federal-state program. I have been working intensively at highway safety for eight years, will resume the chairmanship of the New York Joint Legislative Committee on Motor Vehicles, Traffic and Highway Safety this month, and look toward potential for long-term progress.

Without the program as set forth in the proposed amendment, the potential for innovation will continue to be monopolized by the automobile manufacturers and therefore stifled to suit what they think are their sales purposes. Our program would break their monopoly of technical information and prove that attainment of crash-ratings is within the realm of reason.

We most strongly support the proposed Ribicoff et al amendment as it was submitted to you by Senator Ribicoff. Leading state legislators from California, Michigan, South Carolina, Massachusetts and Illinois have joined us in solid support for this program and for this amendment, in addition to those who had the honor of testifying before your committee on April 6: Speaker Vincent Steffen of the Iowa House of Representatives, Heward Grafftey of the Canadian Federal Parliament and Fred Young of the Ontario Provincial Parliament.

The state legislators who have been active in traffic safety work and have solid convictions on the subject clearly express complete support for the New York State Project and for the proposed amendment, number 511 to section 105 of S. 3005. They state, as a corollary, intention to avoid duplication in this area of effort and to cooperate with the existent New York Program. Duplication is unlikely anyway because the sum of money provided in the amendment



is limited. If you would like me to send material concerning the positions of legislators from other states, I will be happy to do so. We have formed a Legislative Initiative Committee on Highway Safety.

Mandated safety standards have never hurt the production and profits of any major industry in the long run; quite the contrary. I find there are those who now believe that I was in part responsible for the slow-down in automobile sales. If the safety issue had been causative, I would say that the life-saving results of the New York Legislature's history in the field and the Congressional hearings in which you played so prominent a part far outweigh a temporary reduction in sales. However, having considered the current model year, first quarter and past years' figures, I believe that over-scheduling with relation to reasonable expectation and other factors including inflation were causative of the temporary reduction from record-high production and profits. The exception is the Corvair. As to the rest of the industry, the safety issue was, in my opinion, small and peripheral in the chain of occurrence affecting sales.

Again, may I say that it was a great honor to meet you and testify before you. If I can be of help to you in any way, I am certainly at your service.

Very truly yours,

EDWARD J. SPENO.

(EXHIBIT A)

MAY 18, 1966.

STATEMENT OF GENERAL COUNSEL OF COMMERCE DEPARTMENT

To: Senator Magnuson's Commerce Committee.  
Re Safety Car.

We do not think it is desirable to create an impression that the federal government will develop prototype vehicles in the sense that they may be imposed upon manufacturers for their use in mass production.

In developing and adopting vehicle safety standards, the federal government should not assume that it must design and develop prototypes as operational pre-production models.

We adopt the thesis that governmental issuance of effective and adequate vehicle safety performance standards will increase private competition in the manufacture and mass production of safer motor vehicles for sale to the public.

We think that such legislation as may be enacted by Congress should rest on the same premise and that automobiles do not have to be identical in appearance or performance to be safer.

Also, we believe it is undesirable to provide for specific grants to the states for prototype vehicles as written in the new section 105 proposed in Amendment No. 511. The possibility of 50 or more prototype vehicles each separately developed by each state would result in completely unnecessary and costly duplication of effort. We believe that an experimental vehicle program under authority of Section 104 of S. 3005 is greatly preferable to the detailed provisions of Section 105 c.

(Whereupon, at 12:30 p.m. the committee recessed, to reconvene at 2 p.m. the same day.)

AFTER RECESS

(The committee reconvened at 2 p.m., Hon. Harley O. Staggers (chairman) presiding.)

The CHAIRMAN. Is Mr. Marsh in the audience?

Mr. Marsh, would you come forward?

STATEMENT OF WINSTON W. MARSH, EXECUTIVE VICE PRESIDENT, NATIONAL TIRE DEALERS & RETREADERS ASSOCIATION, INC.

The CHAIRMAN. Mr. Marsh, I would like to explain to you the proposition we arranged for those held over from yesterday. In trying to get to some who made special provision to come in, we are trying to accommodate as many as we can, and I wonder if you can summarize your statement today.

Mr. MARSH. I can try, Mr. Chairman.

The CHAIRMAN. How long would it take you for your statement?

Mr. MARSH. The whole statement I would judge to be 10 and not over 15 minutes.

The CHAIRMAN. If you can hold it to 10 minutes, I would appreciate it. We will not have any questions at the conclusion of your statement, but can you stand by for questioning later?

Mr. MARSH. Yes, Mr. Chairman.

The CHAIRMAN. You may proceed, then.

We are glad to have you with us, Mr. Marsh. We are trying to get every side that we can in order to make the record as complete as possible.

Mr. MARSH. My name is W. W. Marsh. I am executive vice president of the National Tire Dealers & Retreaders Association, Inc. I appreciate the opportunity to appear before this committee to express the association's views on H.R. 13666.

The National Tire Dealers & Retreaders Association is an association of approximately 3,500 small businessmen who serve the tire industry as independent tire dealers and retreaders. The association has long been active in efforts to promote effective tire standards of meaning and significance to the American consumer. Pursuant to the direction of our membership, the association has for a number of years actively attempted to persuade interested persons that meaningful voluntary standards were essential to the public interest. We have, through the offices of the Tire Retreading Institute, adopted effective and meaningful standards for the processing of retreaded tires. Our membership is composed of independent businessmen who desire to sell a safe new tire and to produce and sell a safe retread.

Unfortunately, effective new tire standards have not been established on a voluntary basis. Our association has made an extensive study of the tire situation and the possible approaches to legislation. It is our general conclusion that Federal minimum standards for passenger tires are needed.

We have reviewed with care H.R. 13666 and, previously, its Senate counterpart, S. 2669. In general, we support H.R. 13666. We are pleased to provide you with the following views on behalf of the 3,500 independent tire dealers and retreaders who belong to our association.

#### NEW TIRE STANDARDS

The National Tire Dealers & Retreaders Association supports the concept of a law to set minimum Federal performance standards for new passenger tires. We believe that it is feasible for such standards to be set by the Department of Commerce.

We agree with the concept of interim minimum performance standards. It is appropriate to delegate the choice of existing standards now in force to the Secretary of Commerce. In this connection, we recommended that the Rubber Manufacturers Association's new voluntary standards be considered by the Secretary of Commerce as the basis for the interim new tire standards adopted by the Department of Commerce. Our review of these standards leads us to believe that they are superior from a safety point of view to the standards promulgated by the Vehicle Equipment Safety Commission.



We believe that the bill H.R. 13666, as now written, authorizing the Secretary of Commerce to adopt, for an interim period, one of the existing safety standards for new tires and providing for 2 years of research and development, is proper. This will provide sufficient time for review of the interim standards, and will enable the Secretary to evaluate how well the enforcement procedures set by the Federal Government operate.

#### RETRREAD STANDARDS

We believe that the industry's voluntary standards adopted by the Tire Retreading Institute in 1955, subsequently upgraded several times, attest to the intent and desire of retreaders to provide a quality product to their customers. A copy of the TRI standards is attached hereto for convenient reference. I would like to add that these have since been modified and in the middle of next week we should have a final draft of an updated and improved standards offer and beyond what has been attached to this.

Retreaders are dependent upon good casings in order to process good retreads and the TRI standards give recognition to this fact by its provisions dealing with the condition of the casings which are classified as acceptable. We believe, therefore, that, if all retreaders were required to adhere to the standards published by the Tire Retreading Institute, purchasers of retreaded tires would be assured that they were obtaining a safe and sound product.

Furthermore, the current activities of the Retreading Industry Action Committee to improve shop quality also demonstrates the retreading industry's awareness of its responsibilities.

Nonetheless, we recognize that if Federal new tire standards are adopted, then the purpose of the proposed bill will require that retreaded tires should also measure up to federally set minimum standards after the proper period of research and development.

Our endorsement of Federal minimum retread standards is subject to qualifications dictated by the market and technical facts of the tire and retreading industry.

First, it is impractical to adopt retreading standards before the new tires, produced to meet the new Federal standards, are in the replacement market and ready for retreading. Retreaders will be dependent on casings meeting the Federal standards in order to process retreads which will meet Federal standards. Replacement casings from new tires produced under Federal standards will not be available for retreading for approximately 2 years after these tires are in use on cars. Consequently, the promulgation of retread performance standards before expiration of the 2-year interim period would not only be unrealistic but could virtually eliminate the consumer's opportunity to buy a retreaded tire. The immediate promulgation of retread standards could remove retreaded tires from the market and destroy the business of an estimated 6,500 retreaders.

Therefore, we support and advocate the position taken in H.R. 13666, and approved by the U.S. Senate, that interim retread standards should not be established.

Furthermore, we also support the position taken in section 5(c) and approved by the U.S. Senate to the effect that :

In prescribing standards pursuant to clause 2 of the preceding subsection the Secretary shall not require retreaders to use tire casings produced under the minimum safe performance standards for new tires, until such time as the Secretary finds that such casings are generally available for retreading.

Second, it will be necessary for the independent small businessmen who compose the retreading industry to have sufficient time so that they can make whatever changes are necessary in their procedures and equipment to meet the Federal retreading standards once they are promulgated. These 6,500 retreaders are small businessmen with limited facilities, personnel, and capital. Since it is the general intent of Congress to encourage small business growth and to prevent the destruction of small business, these small businesses must be given enough time to adjust and comply. We, therefore, consider the provisions of section 5(d) of H.R. 13666 to be essential.

Third, we also consider the language of section 5(a)(2) which permits the minimum performance standards for any retreaded tire to be "in the form of minimum safe procedures for retreading tires," an essential provision. As we have indicated, there are approximately 6,500 retread shops in the United States.

These shops frequently have two or three lines of retreaded tires. If the minimum standards may not be in the form of minimum procedures for retreading, these facts of the industry could require the Department of Commerce to conduct 13,000 or more separate tests in the endeavor to check a sample of retreads from all the retread shops in the country. There are not sufficient test wheels or qualified personnel available in the United States to approach this magnitude of testing. We estimate that the cost of manufacturing sufficient test wheels for such purposes would be in the area of \$8 or \$10 million. Thus, if an alternative method of ascertaining compliance is not established, realistic enforcement will be out of reach.

The deletion of the quoted language would not only impose difficult problems for the Federal Government in enforcing the law, it would also impose insuperable burdens on retreaders. These small businessmen would be at a loss to determine their compliance with the Federal law. The problem of uncertain enforcement for the Government is possible violation of the law. The problem of uncertain compliance for the retreader is the alternative of abandoning his business. Neither of these results, which would follow from the stark imposition of a minimum performance standard without a process definition, is in the interests of the public.

The U.S. Senate recognized the need for an alternative definition of the Federal minimum retreading standards. We strongly urge this committee to oppose any efforts, should there be any, to delete the alternative definition of the minimum safe performance standards, which permits them to be defined in terms of minimum safe procedures. Deletion of this language will produce a law that would be unrealistic, impossible to enforce, impossible to comply with, and destructive to the many small retreading businesses in this country.

With these realistic and essential qualifications, the National Tire Dealers & Retreaders Association endorses the passage of a Federal law establishing minimum standards for retread tires. Our good faith



in making this endorsement with its attendant qualifications, we submit, is demonstrated by the fact that we took this position prior to the introduction of any bills or resolutions calling for such standards.

I have here, and I can leave them, two cross sections of tires of the same size. One is what we call a "cheapie" new tire, and the other is a retreaded tire of the same size. The difference in quality and materials is almost visible to the naked eye.

This other one is a smaller tire of the "cheapie" new tire variety. I leave them here for your examination and pleasure.

#### ADMINISTRATIVE PROCEDURES

We believe that H.R. 13666, as now drafted, contains adequate procedural requirements for the administrative regulations called for under the bill. Without the definitions of proper procedure presently contained in H.R. 13666, the bill would deny due process to our members. The procedures are defined by the reference to the Administrative Procedure Act in section 5(a) and the concluding sentence of the subsection which reads:

Regulations established and issued pursuant to this subsection shall be made on the record after opportunity for an agency hearing.

These provisions establish procedures which are set forth in the Administrative Procedure Act and are applicable to most administrative agencies dealing with problems as complex and vital to the regulated industry as the ones involved in H.R. 13666. Furthermore, as was recognized by the Senate Commerce Committee, the Secretary of Commerce would do well to utilize the expertise of the tire and retreading industry in establishing standards under the proposed act.

The requirement of a record and an agency hearing is consistent with section 9 entitled "Judicial Review of Orders." Without an agency hearing with a record, meaningful judicial review, which is recognized as the appropriate safeguard on administrative abuse of discretion, would be impossible.

A great deal, both to the industry and to the public, will be at stake when the Secretary promulgates regulations. Under such circumstances, the best of administrative procedures should be employed. We consider the procedural provisions of H.R. 13666 to be essential.

#### PREEMPTION

We consider Federal preemption to be essential to avoid contradictory requirements, compelling special manufacturing procedures which will undoubtedly increase the cost of tires without appreciably increasing their safety. However, section 7 of H.R. 13666, entitled "Preemption" merely solves the problem for the period subsequent to the promulgation of Federal regulation. In the brief interim period, there exists a threatening problem of varying State regulations which will require an adjustment of processes and equipment. Our information shows that State standards will become effective in two States on July 1, 1966, and in a third one on October 1, 1966. The effect of a short period of varying State laws, to be followed by their preemption by uniform Federal standard, will be negligible in terms

of tire safety. On the other hand, it will be substantial in terms of expense, disruption of production processes, and the resulting cost of tires. We can see no purpose for short-lived State laws which will be preempted by the Federal regulations. We, therefore, recommend and advocate the insertion in section 7 of a preemption provision providing that the field will be preempted by the Federal Government at the time of enactment. Such a provision will establish an orderly procedure for subjecting tires to uniform standards. It will avoid the disruptive effect of short-term State regulations which may vary from the Federal standards to be issued.

#### LABELING

We have no objection to the addition of a permissive option allowing the required labeling to include the identification of the distributor of a tire rather than the manufacturer. We do not object with the understanding that such a provision would be in the subjunctive "or" and would not impose a requirement that the distributor be identified on the tire.

#### GRADING

We do not object to section 10 of H.R. 13666, which authorizes the Secretary of Commerce to investigate the feasibility of a uniform quality grading system because as we have pointed out previously, we believe the study will prove a grading system to be completely unworkable and unrealistic.

#### INSPECTION AND TESTING

We believe that on-the-premises inspection to determine compliance with new tire standards should be done at the manufacturer's plant or facility and not at the dealer's or distributor's place of business—except in the case where the distributor chooses to label the tire with his identification. The manufacturer of the new tire product is responsible under the proposed bill and should also be responsible for receiving whatever inspection or testing requirements are established under section 12 by the Secretary of Commerce. It would be inappropriate for anyone else to carry this burden since it is the manufacturer of the product who can make certain that it conforms to the Federal regulation.

We interpret the language of section 12(b) of H.R. 13666, "held prior to their sale or delivery," to refer to the transaction between manufacturer and the dealer. If the committee does not consider the language sufficiently clear at this point, we recommend that the language "held prior to their sale or delivery" be amended by the addition of the concluding phrase "to the retailer." We support such a change.

We believe our interpretation of this section was shared by the Senate Commerce Committee, where the language appearing in section 12(b) was first established. Under an earlier draft before the Senate Commerce Committee, the quoted language had the concluding phrase "to the ultimate consumer." This concluding phrase was deleted when the matching Senate bill was before the Senate Commerce Committee.

We trust that the Department of Commerce has no reason or desire to conduct its inspection at the countless retail shops in this country.



With regard to new tires, the Department of Commerce may more efficiently inspect the plants of the 16 tire manufacturers, rather than using the exhaustive method of inspecting retail shops.

#### PROHIBITED ACTS

We consider the following language of section 13(b) to be essential to a fair law that imposes the penalty for violation upon the violator:

Paragraph 1 of subsection (a) shall not apply to the sale, the offer for sale, or the introduction or delivery for introduction in interstate commerce of any tire or motor vehicle after the first purchase of it in good faith where the tire is labeled as conforming to Federal minimum safe performance standards.

This provision protects the nonsuspecting retailer who may have no knowledge of a violation and, more importantly, no conceivable method of ascertaining the compliance of the manufactured product.

We also particularly support the provision of subsection 13(d) outlawing regrooving for passenger tires. It is a nefarious and unsafe practice.

#### CIVIL PENALTY

The civil penalty set forth in section 14 of H.R. 13666 lacks a method of enforcement. We therefore suggest that subsection 14(b) be redesignated as subsection 14(c) and a new subsection designated subsection 14(b) be inserted. This new subsection should read as follows:

Such civil penalty shall be recoverable in a civil suit filed in the appropriate district court in the name of the United States. It shall be the duty of the various district attorneys, under the direction of the Attorney General, to prosecute for the recovery of such civil penalties. The costs and expenses of such prosecution shall be paid out of the appropriation for the expenses of the courts of the United States.

#### ADVERTISING

We further believe that the bill, H.R. 13666, should specifically prohibit the use of advertising by manufacturers, sellers, or distributors in reference to the interim adopted new tire standards as set up under this bill. There will be no way to ascertain whether the consumer has been adequately protected until the 2-year research and development program is completed and revised new tire standards are issued and the retreading standards are promulgated.

We are fearful that some marketers might see an easy opportunity to say that their tires meet the interim "Government" standards which will precede the research and development program. Such advertising could create havoc in the marketplace. It could be 2 years before it becomes possible to determine whether this type of advertising is deceptive. We therefore recommend that a provision be included in the bill which prohibits the use of this type of advertising during the interim 2-year period of research and development and that the Federal Trade Commission under its powers granted in the Federal Trade Commission Act be the enforcement agency.

## VEHICLE INSPECTION

Also, we would like to comment on compulsory vehicle and tire inspection. For a number of years our association has participated with the Auto Industries Highway Safety Committee in nationwide voluntary safety checks on an annual basis.

However, it is our feeling that each individual State should adopt compulsory vehicle inspection and that this inspection should include a careful inspection of the tire. The effectiveness of such inspection is dependent on the training and qualifications of the inspectors. The major inadequacy in existing State inspection is the very inadequate instruction provided to the people doing the inspection. Adequate training of inspectors should be viewed as the crucial ingredient of effective inspection. Smooth tires will remain a serious menace until such time as inspection is compulsory in the 50 States and until such inspection is done by properly trained people.

In view of interstate travel, we believe that uniform standards for periodic vehicle and tire inspection is preferable. We therefor believe H.R. 13666 should establish a national policy to be implemented by the States.

## CONCLUSION

The foundation of the National Tire Dealers & Retreaders Association is the essential integrity of the independent tire dealer who desires to sell a safe new tire and to produce and sell a safe retread. Consistent with our established record of advocating and promoting tire safety, we pledge our help to you and to the agencies of the Federal Government. We also pledge the assistance of the Tire Retreading Institute, an organization whose members have established a retreading quality control and inspection program. It will be, as it has been, our continuing effort to protect the public interest and to sell a good and safe product.

Our aims for tire safety are joint ones. Any of the association's assistance that you wish will promptly be made available to you.

Respectfully submitted, National Tire Dealers & Retreaders Association, Inc.

(Attachment to Mr. Marsh's statement follows:)

## NATIONAL STANDARDS FOR TREADING AUTOMOBILE &amp; TRUCK TIRES

(Adopted by the Tire Retreading Institute, a Division of National Tire Dealers & Retreaders Association, Inc., Washington, D.C.)

(These standards were originally established at a meeting of industry representatives, January, 1955, and adopted by The Tire Retreading Institute October 13, 1955. They were reviewed by members of the Tire Retreading Institute during the summer of 1958 with suggested revisions. The suggested revisions were circulated during the summer of 1959 and were adopted by The Tire Retreading Institute September 16, 1959, at Washington, D.C.)

## SECTION I

*Purpose*

The purpose of these specifications and treading standards, which are drawn up in the interests of motoring safety, is to provide a nationally recognized standard for treading tires; act as a basis for better understanding between producers and users; protect purchasers against inferior materials and workmanship; promote fair competition among retreaders; provide a basis for confidence in



properly retreaded tires; and for declaration of quality workmanship and warranty.

## SECTION II

*Scope*

These standards cover definitions of terms used in the retreading industry, general requirements for material quality and labeling, casing inspection and selection, preparation of tire to be retreaded, inspection of the finished tire, as well as a statement of warranty that the finished tire conforms to these standards.

## SECTION III

*Definitions*

For the purposes of this Standard the term "retreading" (recapping) as used, refers to replacement of worn rubber on a tire tread by processes known in the trade as "full treading" (full capping) and "top treading" (top capping). These are defined as follows:

*Full-Treading* (full capping). The worn tread rubber is rasped or buffed off the top of the tread and over the shoulders as far as the new rubber is to extend.

*Top-Treading* (Top capping). In top treading only the top of the old tread is rasped. All the new rubber is applied just to the top of the tread—hence the name "top tread."

*Undertread*—Rubber between the base of the antiskid design and buffed tire body.

*Skid-depth*—The distance measured near the centerline of the tire from the base of the anti-skid design to the top of the tread.

*Natural Rubber*—Natural rubber shall include all forms and types of tree, vine, or shrub rubber.

*GR-S Synthetic Rubber*—GR-S synthetic rubber shall include a synthetic rubber of the butadiene-styrene type generally used in the manufacture of pneumatic tires and tread rubber.

*Cold Rubber*—Cold rubber is a type of GR-S synthetic rubber polymerized at approximately 41°F., as distinguished from hot rubber polymerized at approximately 122°F.

*Reclaimed rubber*—Reclaimed rubber is any rubber derived from the processing or treatment of vulcanized rubber or cured scrap rubber.

## SECTION IV

*Material requirements*

1. *General Statment.*—The purpose and intent of this section is to establish within reasonable limits general guides for the selection of tread rubber and other materials which will give the ultimate user the highest possible tread wear under normal operating conditions. Therefore, the minimum quality tread rubber used must of a grade and quality level which is considered as a manufacturer's highest quality exclusive of premium grades designed for high abrasion resistance.

2. *Labelling.*—Tread rubber shall be labelled: Natural or Crude Rubber; 100% Cold Rubber; Cold Rubber; GR-S; etc., on each box.

3. *Standard Dimensional Tolerances.*—(1) Thickness—includes cushion, if used, but does not include backing.

(a) For nominal gauges of  $1\frac{1}{32}$  inch and less, a tolerance of minus  $\frac{1}{64}$  inch and plus  $\frac{2}{64}$  inch is established.

(b) For nominal gauges of  $2\frac{1}{32}$  inch and up to and including  $2\frac{3}{32}$  inch, a tolerance of minus  $\frac{1}{64}$  inch and plus  $\frac{3}{64}$  inch is established.

(c) For nominal gauges of  $2\frac{5}{32}$  inch and over, a tolerance of minus  $\frac{2}{64}$  inch and plus  $\frac{4}{64}$  inch is established.

(2) Width:

(a) For tread rubber sizes with a base width of 6 inches and less, a tolerance of plus  $\frac{1}{16}$  inch and minus  $\frac{1}{8}$  inch is established.

(b) For tread rubber sizes with a base width of more than 6 inches, but not more than 12 inches, a tolerance of plus  $\frac{1}{8}$  inch and minus  $\frac{1}{8}$  inch is established.

(c) For tread rubber with a base width of over 12 inches, a tolerance of  $\frac{1}{4}$  inch and minus  $\frac{1}{4}$  inch is established.

(3) Bevel or Wing Width:

(a) Wing Width Control—

(1) For "wing-size" tread rubber with a base-width of 6 inches or less, the center-line of the crown should coincide with the center-line of the base within  $\frac{1}{16}$  inch.

(2) For "wing-size" tread rubber with a base width of 6 but not over 12 inches, the center-line of the crown should coincide with the center-line of the base within  $\frac{1}{8}$  inch.

(3) For "wing-size" tread rubber with a base width of over 12 inches, the center-line of the crown should coincide with the center-line of the base within  $\frac{1}{4}$  inch.

(b) Bevel Width—

(1) For all "Bevel" tread rubber, the center-line of the crown should coincide with the center-line of the base within  $\frac{1}{8}$  inch.

(4) Wing Edge Thickness:

(a) A maximum edge thickness of  $\frac{3}{64}$  inch is established.

(1) The thickness should be measured by using calipers with graduations in 64ths of an inch.

(2) The calipers should have the jaws opened at  $\frac{3}{64}$  inch and the wing edge inserted. If the edge is admissible, it meets the required dimension.

(5) Center-line Position:

(a) The center point of the center-line mark should be within  $\frac{1}{8}$  inch of the actual measured center of the crown of the tread rubber when the crown width is 10 inches or less, and it should be within  $\frac{1}{8}$  inch of the measured center of the crown when the crown width is over 10 inches.

4. *Padding Stock*.—The padding stock shall be suitable for filling in worn (low) spots under tread rubber.

5. *Filler-Strip Stock*.—The filler-strip stock shall be a minimum of  $\frac{1}{32}$  inch thickness at the center-line. This stock shall be suitable for filling around the complete circumference of the tire being retreaded to insure proper undertread.

6. *Cement*.—The vulcanizing cement shall be manufactured with natural rubber only, with no reclaimed rubber, and with solvent as defined. This cement shall be capable of being vulcanized, and shall be suitable for use in retreading and repairing of tires.

7. *Rubber Solvent*.—The rubber solvent shall consist entirely of petroleum distillate, and shall be water-clear, free from foreign material, acid, water, or antiknock materials. When subjected to distillation in accordance with an applicable method, the solvent shall show an initial boiling (I.B.P.) of 100° to 140°F., and an end point (E.P.) of 250° to 300°F., with no oily residue.

8. *Age Limits and Storage Conditions For Tread Rubber and Repair Materials*.—Tread rubber for pneumatic tires of all types, repair materials, and unvulcanized accessories should be stored in a dry place, protected from the elements and direct exposure to sunlight and the temperature of the storage area should be kept below 80°F.

Under these conditions, tread rubber and repair materials should be expected to remain in a satisfactory condition for 6 months after date of receipt from the manufacturer. Colder storage conditions extend the shelf life, without harm to the product. Warmer storage conditions shorten the shelf life.

Tread rubber and repair materials exposed to temperatures of 80° to 95°F., can be expected to have their shelf life reduced 25% and if stored at temperatures of 95° to 110°F., a reduction of 50% or more can be expected. Tread rubber and repair materials will not tolerate temperatures of over 110° for more than a very short time without danger of vulcanization.

If the tread rubber and repair materials are exposed to temperatures which cause freezing or hardening of the stock (which can occur at temperatures below 40°F.) the stock must be carefully restored to its original condition by warming it at a temperature between 70° and 90°F.

Tread rubber, repair materials, and all unvulcanized accessories are made to meet exacting standards and to perform under existing field conditions, and at the same time to be as satisfactory as possible for shelf aging. Because these materials are shipped to widely varied climates and are subjected to all types of storage, the possibility of deterioration is always present.

The storage period and conditions specified reflect general industry experience. Violation of these specifications may be reflected as an appreciable deterioration of a percentage of the material affected and does not mean that such material is unusable or subject to failure because of age.



## SECTION V

*Preliminary inspection of tire*

1. General Statement: The purpose and intent of this section is to outline the general procedures in the inspection and selection of tire bodies to be retreaded.

2. Inspection of tire: Careful inspections shall be made by a skilled operator, and shall include placing the tire on a mechanical spreader under adequate lighting, distorting the natural contour of the tire sufficiently to expose any evidence of ply separation, impact breaks, or other defects without damaging the bead.

3. Inspection Standards: Tires that have a known separation between the plies shall not be retreaded, and should be destroyed. No tires to be accepted for retreading may contain any of the following weaknesses or injuries.

A. Ply Separation.

B. Fabric injury in the bead area.

C. Broken or damaged bead wires.

D. Flex Breaks.

E. Loose cords on the band ply, or evidence of having been run flat.

F. Tread separation, other than that which can be removed in the buffing operation.

G. More than surface weather checking.

H. Generally weakened condition due to age, moisture, and/or exposure.

I. Any tire except a rear tractor tire carrying a synthetic marking such as S-3, S-7, etc.

J. Any automobile casing containing an impact, bruise, or X type break, cut, or any other type of casing injury requiring what is commonly known as a section repair.

4. All tires to be processed shall be thoroughly dry and all cords free of moisture.

5. Nail holes: All nail holes must be thoroughly cleaned and inspected for extent of casing injury. If casing is punctured only and does not require a full section repair or reinforcement, the nail hole may be filled and treated in the conventional manner so as to provide a sound tire body for processing.

## SECTION VI

*Processing*

1. General Statement: The purpose of this section is to emphasize certain processing standards in the retreading of tires. Detailed instructions will be found in the NTDRA Shop Operating Manual, which should serve in all instances where there are specific questions.

2. Buffing: The tire shall be uniformly buffed using a matrix template or other satisfactory system of measurement to insure proper matching of buffed crown contour with matrix tread contour and overall diameter. The buffed surface should be of a smooth texture and free from moisture, loose cords and foreign material which would affect adhesion properties between casing and tread rubber.

Proper buffing dimensions for each matrix must be posted in the buffing room. These should include—

Matrix identification

Buffed Tread Width

Buffed Crown Contour

Overall buffed width

Overall buffed diameter

with minimum and maximum measurements.

3. Cementing: The cementing process should begin within a reasonable time after the buffing operation is completed to avoid the hazards of an oxidized surface.

It is suggested that each container of cement be tested for freshness.

If solvent is used as a thinner, this too must be tested for presence of oil.

Tires to be cemented must be free from moisture and foreign material such as buffing dust, dirt, loose cords, etc. Extreme caution must be taken on air lines used to blow dust from the surface of a tire. Efficient moisture traps must be located as close as possible to the air release valve to prevent moisture from being blown onto the surface of the tread area.

4. Building:

(a) Full Tread (Full Cap)—Shall be made with wing-type tread rubber, and shall extend over shoulders.

(b) Top Tread (Top Cap)—Shall extend only across the tread area, thus conforming with that tread known commercially as a top tread (top cap).

(c) If the breaker is exposed on any portion of the buffed area, it shall be covered with a suitable protective padding stock or cushion gum before applying the tread rubber.

(d) Splicing—Tread rubber shall be skived or butted at one end. The tread rubber shall then be applied to the tire and shall be centered over the entire circumference. After the backing is removed, the cushion surface shall not be handled or touched. The other end of the tread rubber shall then be skived or butted to match the end previously skived or butted.

(e) Stitching—Stitching or rolling of tread rubber shall then be accomplished starting at the center and working to the edges so that air pockets will be eliminated. Wrinkles at edges of tread (on wing dies) shall be thoroughly stitched. Edges of top tread (top cap) tread rubber shall be tight. All air pockets must be eliminated. The use of mechanical stitchers or tread builders is recommended for efficiency. However, their operation must be checked for extrusion or thinning out of original tread rubber die size which causes thin spots, open splices, tread cracking, etc.

#### 5. Curing:

(a) Curing shall be started as soon as practicable after the building operation has been completed. Curing temperatures, time, and pressure shall accurately follow mold and rubber manufacturers directions. A correlation between the curing characteristics of the tread rubber and heating characteristics of the mold is necessary. Extra curing time must be taken into consideration when using filling strips or padding stock and the rubber cured accordingly.

(b) Curing equipment—Molds and/or matrices shall be so designed and installed with sufficient heat so that—

A. Temperatures to within plus or minus 5°F. tolerance will be maintained according to mold and/or tread rubber manufacturer's recommendation;

B. Necessary precaution should be taken to provide uniform drainage of condensate from the molds, if steam;

C. Necessary precautions should be taken to obtain uninterrupted flow of current to molds, if electric.

D. Proper sizes of curing tubes and rims shall be inserted in accordance with curing tube manufacturer's specifications.

(c) Molds shall be equipped with instruments in good condition, located to indicate mold temperature accurately. They shall be so designed as to cure retreaded tires without damage or distortion.

(d) Air pressure recommended by equipment manufacturer must be maintained and controlled through accurate gauges as close to each outlet as possible in order to insure proper reading.

6. Final Finishing: After curing, the retreader shall make a final examination of the tire, checking inside to insure that nail holes and loose cords have been properly treated and that the tire is not buckled. The outside of the tire shall be checked to insure adequate molding and curing. The tread shall be straight and not porous. Each tire shall be trimmed, cleaned and/or painted.

*Tread thickness.*—The tread rubber used shall be of such thickness as to provide the following minimum amounts of undertread. Undertread thickness should be gauged after the tire has been retreaded and does not necessarily reflect tread rubber thickness.

[In inches]

Tire size	Minimum under tread	Minimum skid depth
Passenger: Conventional designs:		
6.00-inch cross section and larger	2/32	10/32
Less than 6.00-inch cross section	2/32	9/32
Mud and snow designs:		
6.00-inch cross section and larger	2/32	14/32
Less than 6.00-inch cross section	2/32	12/32
Truck tires:		
Small (up to 7.00-inch cross section)	4/32	(1)
Large (over 7.00-inch cross section)	6/32	

<sup>1</sup> Equal to that of new 100-level tire of same size and type—minus tolerance 2/32 inch.



## SECTION VII

*Control instruments*

The effective use of time clocks, heat gauges, air pressure gauges mold and/or matrix temperature gauges is required for the control of heat, time, and air pressure.

Further, it is recommended that these gauges be calibrated regularly to insure their accuracy.

## SECTION VIII

*Warranty*

In order that the consumer may know that the retreaded tire purchased actually complies with the specifications set forth in these standards as well as the general practices outlined in the NTDRA Shop Operating Manual for Tire Reconditioning, all tires must carry a guarantee against defects in workmanship and material as well as give satisfactory service under normal operating conditions.

## SECTION IX

*Labelling*

Members in good standing of the Tire Retreading Institute are required to affix an authorized medallion to each tire processed in compliance with these standards. This will give the consumer tangible assurance of minimum quality standards as set forth in these specifications. The medallion must be placed only on those tires meeting these standards.

Willful evasion and misapplication of the authorized medallion on retreaded tires not meeting these standards will be sufficient cause for expulsion from membership in the Tire Retreading Institute.

**STATEMENT OF HON. WESTON E. VIVIAN, A REPRESENTATIVE IN  
CONGRESS FROM THE STATE OF MICHIGAN**

Mr. MACDONALD (presiding). Congressman Vivian, of Michigan.

Mr. VIVIAN. Mr. Chairman, I would like to introduce a resident of my district, plus two of his associates, who will testify next.

Mr. Chairman, my constituents are greatly interested in your hearings. Their increased interest in this field arises from two different causes. First, many thousands of my constituents are employed by the auto industry. A major assembly plant of one of the major auto firms is located in my district. The number of men employed in that plant in one auto line recently has dropped significantly, because, I am told, buyers are reluctant to purchase the vehicle, following testimony before other legislative bodies alleging that the vehicle is unsafe. Fortunately, overall employment in the plant has not decreased, but has been maintained; the employees affected have shifted to production of other lines. Thus, my constituents are not as yet adversely affected.

Mr. MACDONALD. When did this dropoff take place?

Mr. VIVIAN. Within the last 4 to 5 months, as I recollect.

Mr. MACDONALD. We just started these hearings recently.

Mr. VIVIAN. These hearings certainly were not the cause, Mr. Chairman. In fact, I am certain that my constituents, all my constituents, are appreciative of these hearings and desire that you continue to obtain testimony from those requesting automotive safety standards. Surely the men and women who work in the auto factories do, for many of the accidental deaths which have occurred in my district have occurred on the major highways within sight of the automobile plants.

The group from which you are about to hear testimony will be introduced by Dr. Paul Gikas, assistant professor of pathology at

the University of Michigan Medical Center, in Ann Arbor, and chief of laboratory service at the Veterans' Hospital there. He is also a deputy medical examiner for the county of Washtenaw.

As examiner, he is a member of a medical team, at the University of Michigan, which has sped to automobile accidents in the county, often before the ambulances arrive. The members of the team have police radio receivers in their cars and officers to notify them immediately when accidents occur. This team has conducted a detailed study, under a grant from the U.S. Public Health Service to the university, of some 139 fatal accidents, in which 177 deaths have occurred.

I think Dr. Gikas can be said to be one of the most active and knowledgeable proponents of the need to design a more crashworthy automobile. He will present the reasons why he believes this to be necessary. Dr. Gikas has fought, within organized medicine, for the support for Federal standards for safety in automobiles. Again, that has been a rather unique position until only very recently.

I think you will find his information most worthy of being heard.

Mr. MACDONALD. Thank you very much.

Dr. Gikas?

**STATEMENTS OF DR. PAUL GIKAS, ASSOCIATE PROFESSOR OF PATHOLOGY, UNIVERSITY OF MICHIGAN COLLEGE OF MEDICINE; DR. ARNOLD CONSTAD, SECRETARY, PHYSICIANS FOR AUTOMOTIVE SAFETY; AND DR. CHRISTOPHER BEVER, CHAIRMAN OF THE WASHINGTON SECTION, PHYSICIANS FOR AUTOMOTIVE SAFETY**

Dr. GIKAS. Thank you, Mr. Chairman.

Our presentation will be made by a team, Mr. Chairman. There are two other physicians, Dr. Arnold Constad, a New Jersey pediatrician, and Dr. Bever, a Washington, D.C., physician. Dr. Constad will speak first.

**STATEMENT OF DR. ARNOLD CONSTAD, SECRETARY, PHYSICIANS FOR AUTOMOTIVE SAFETY**

Dr. CONSTAD. Mr. Chairman and members of the Committee on Interstate and Foreign Commerce, Physicians for Automotive Safety, which is the title of our group, really welcome this opportunity to give testimony today.

My name is Dr. Arnold Constad, a practicing physician in New Jersey.

Physicians for Automotive Safety welcomes this invitation to present testimony on H.R. 13228. This is not the first occasion at which the medical profession has appeared before your committee on the problems of automotive safety. For more than a decade the American Medical Association and the American College of Surgeons have addressed repeated resolutions calling for a safer car. These are already part of the congressional record of this same committee under the leadership of Oren Harris and Kenneth Roberts. A resolution adopted on December 1, 1955, by the House of Delegates of the American Medical Association reads:



Whereas traffic accidents in the United States claim 38,000 lives and 1,250,000 injured each year, with a probable 45 percent increase in vehicle mileage in the next 10 years; and

Whereas this death and accident toll could be materially reduced through improvement in automotive safety design and construction; and

Whereas all other modes of public transportation except that by automobile are already safeguarded by Federal safety standards: Therefore be it

*Resolved*, That the American Medical Association, through its house of delegates, strongly urges the President of the United States to request legislation from Congress authorizing the appointment of a national body to approve and regulate safety standards of automobile construction.

That was in 1955 when the toll was 38,000 lives and 1,250,000 injured. Now it is 50,000 lives and 4 million injured—proof enough of the ineffectuality of the pleas of our predecessors Dr. Horace Campbell, Dr. Fletcher Woodward, Dr. John Stapp, Dr. James Goddard, Dr. Abraham Mirkin, Dr. Hunter Shelden, and Dr. James Ryan, and Mr. John O. Moore, Mr. Daniel Moynihan, Mr. Kenneth Roberts, Mr. Hugh DeHaven, and Mr. William Stieglitz.

Unlike communicable disease, we know that there can never be a vaccine to prevent bodily injury. All previous safety campaigns have yielded scant control on the incidence of the automobile accident itself, that is the first collision: the impact of the car with another vehicle or barrier.

Let us make it clear that while the yield has been scant, as physicians we will do all we can to encourage expansion of efforts to improve licensing procedures, highway design, driver training, law enforcement, and research. We shall assist in the control of the driver's physical and medical disabilities. All of this does not preclude our priority of medical emphasis that this epidemic of bodily injuries has an unmistakable causative agent, the lack of occupant and pedestrian protection built into the current automobiles. Our medical training compels dedication to promoting survival and the prevention of injury in the second collision, when the occupant impacts some interior or exterior surface. Substantial research has shown that in dozens of vehicle designs and features, there is a failure to anticipate every type of bodily injury which could be caused by the automobile and to then establish safeguards to eliminate the hazards or minimize the injury. In short, we believe that our patients could survive crashes up to 45 miles per hour.

After repeated hearings by the Roberts committee—not until 1964 was the first important legislation toward a safer car written. In 1964—the General Services Administration was authorized to establish standards for the cars purchased by the Federal Government.

Two sets of GSA standards have been published—a notable beginning, but the limitations of GSA are appreciable, for it is only a procurement agency. The budget of GSA for purchase and research has been scant—\$1,500 per vehicle buys few bargains of safety innovation from a cost-conscious industry. There is no application to foreign and domestic producers not competing for Government sales. There is no guarantee of nonindustry representation for the public and consumer interest in GSA transactions. There has been a further detraction in the lack of orderly coordination of GSA activities with related intergovernment agencies and specialists.

The legislation H.R. 13228 does not call for mandatory safety standards now. This can but perpetuate the exposure of our patients to

lethal design. For example, the provision of Federal Standard No. 515/4a—s. 3.4—March 1966:

\* \* \* the upper end of the steering control system shall not be displaced rearward, relative to an undisturbed point to the rear of the steering wheel position, more than five inches.

Driver deaths are caused more by crushing and impaling injuries from the steering assembly than any other cause. It makes preventive medical sense to disallow any rearward displacement of the steering control system in a crash. During the 1965 GSA negotiations with industry, between no displacement (which certain manufacturers could provide now) and 8-inch displacement convenient for other manufacturers) the compromise standard of 5 inches was set. Throughout these discussions, the industry repeatedly backed away from any suggestion of a collapsible steering mechanism to prevent driver injuries. As late as January 1966 it was said to be too late to effect changes in the 1968 models. Yet with mounting public pressure, 2 weeks later, in February 1966, both General Motors and American Motors announced that the 1967 automobiles would feature a steering assembly which would telescope more than 8 inches under forces of deceleration to minimize driver injuries. The industry disclosed that this new telescoping feature had been exhaustively tested and perfected over the past 5 years.

The automobile industry, like the drug industry, should provide satisfactory proof of product testing for performance and occupant crash protection. For example, the hardtop models compromise the structural strength for occupant protection in a collision. While the convertible clearly lacks such protection, the hardtop weakness is not immediately apparent. If the hardtop has received thorough crash testing, this kind of information should be made available to the Secretary of Transport and the car buyer.

Chevrolet will market a new car this fall, the Panther, Cougar, or some jungle breed to compete with the Mustang. What product safety, what occupant and pedestrian protection will be built into this new car? The record shows that the original Mustang models include certain safety features which were deleted from production models: A roll bar, head-rests, collapsible steering column, shoulder harness anchorage, and dual braking system. These are decisions affecting the public health. The public has a right to expect no compromise of safety and at least representation in these important decisions.

An example of known technology not applied is the present padded dash, a cruel hoax of style simulating safety. Certainly, the average car buyer believes he is getting more safety in the latest padded panels. That he is not is substantiated by the Swearingen study which won the 1965 Metropolitan Life Insurance Award for Outstanding Research in Automotive Safety. Ironically, Swearingen demonstrated greater crash protection from the unpadded dash panels in cars of 6 to 10 years ago compared to current design. Head injuries account for most of the serious trauma. Impacting the dash at forces in excess of 30g produces loss of consciousness and cerebral concussion.

Considering this data, there is dangerous compromise in Federal GSA standard 515/2a, s 3.2.2, March 1966, on the location and construction of the instrument panel:



The deceleration of the head form when impacting the panel at 22 feet per second (15 miles per hour) shall not exceed an effective maximum value of 80g when 30g will cause concussion?

How can the industry hold to this standard when they had safer standards in the fifties? Discretionary authority, being exercised "from time to time," will not prevent such indiscretion in available protection.

GSA compromises exemplify the weaknesses of voluntary compliance of industry-government cooperation based on industry self-rule.

This week President Johnson again spoke out for legislation and bluntly told industry leaders, "to quench your thirst for a little blood." We assume the President was referring to the disability and disfigurement daily wrought by the automobile. As physicians, we come here to tell you of the real tragedy of automobile accidents—namely, that 45 percent of the deaths are preventable. If we could take this committee to the roadside, to the emergency room, to the morgue—we could show you this needless waste of life on the spot.

The next best thing is for you to see the record of on-the-spot investigations by the skilled Michigan University research team of Gikas and Huelke. Dr. Gikas is associate professor of pathology at the University of Michigan College of Medicine and with the Veterans' Administration Hospital, Ann Arbor, Mich. These studies have been acclaimed by the medical and engineering professions, the *Automotive News*, *Look* magazine, and many industry leaders. Not all reaction is favorable. When Dr. Gikas presented his material to a Michigan State legislative committee, Ford Vice President Bugas claimed the pictures were "gory and lurid." As reported in the *Detroit Free Press* of February 22, Bugas further charged that Dr. Gikas was "inflammatory, vindictive, and completely biased."

The facts make for bias and the truth cannot be sugar coated. Physicians for Automotive Safety believe that every American should see this demonstration—as you will—patterns of injury which are avoidable. As this committee learns of the inexcusable waste of life on our highways, we are confident you will move for the survival of our patients and the prevention of serious injuries in a safer car.

The term "epidemic" was used before. We like to think of this as a pandemic rather than epidemic. Pandemic is an ever-existing threat while epidemic is something which may come and go. This certainly is just staying with us.

We believe that physicians have a clear responsibility to provide the initiative and support for a broad range of control measures.

Most importantly, again, there is demonstrated the industry-government cooperation based on industry self-rule and voluntary compliance.

With self-rule, the industry makes the decisions on product safety. The automobile industry, like the food and drug and other major transportation, should be required to demonstrate satisfactory proof of product performance for safety.

Speaking of the Mustang, here is a full page ad—this was called to our attention just recently—appearing in yesterday's *New York Times*. It shows very clearly this lovely girl in front of a beautiful automobile, saying, "My brother thinks I bought my Mustang because it

is the most popular new car. Mother thinks Mustang's easy handling sold me. Father thinks it was a lively six. I told them I got it because it was such a good buy."

In very small parentheses below this caption, "But I really got it because it is sexy."

Mr. MACDONALD. The automobile is sexy?

Dr. CONSTAD. That is right. These are not my quotes. These are quotes of Ford.

Can one be proud of this type of appeal?

The legislation, H.R. 13228, does not call for mandatory safety standards now. This can perpetrate the exposure of our patients to lethal design.

Mr. Johnson proceeded to tell Mr. Henry Ford II, and other top executives, that the time had come for strict safety standards and to stop raising picayunish objections.

The automobile manufacturers apparently got the President's message, for 2 days ago they declared for mandatory safety standards. Here culminates months of mounting public, professional, and congressional pressure. But resistance comes in a new front as the industry attaches obstructive qualifications, chief of which are:

1. That the Federal Government should first determine whether the standard is worth the cost that is required to put it into effect. This is the industry's system of cost accounting, really an intolerable medical approach.

Just how does a public official balance the cost of a human life against the cost of a safety feature? So much more of this is made apparent in the wonderful testimony from New York State this morning.

2. That a consensus be sought on each standard from the independent State motor vehicle authorities, or even worse, the industry-dominated Vehicle Equipment Safety Commission, about which you heard things this morning. Here is rank guarantee of chaos, and more delay in the establishment of national standards.

We as physicians share the frustration of not having access to so much of the substantial research, including the Government-financed Cornell data and microfilms. We in medicine allow no such restrictions of information bearing upon the public health.

Furthermore, we do not believe that any research and accident investigation data should be restricted from application in civil or criminal legal action. There must be an end to all secrecy.

The next best thing is to see the unprecedented findings and report of Dr. Paul Gikas, Michigan researcher and associate of the Physicians for Automotive Safety. Dr. Gikas has been just introduced.

According to the Automotive News the presentations he had made may have more impact on the design of future automobiles than any other presentation in auto history. Not all reaction is favorable, however.

When Dr. Gikas presented his material to a Michigan State legislative committee, Ford Vice President Bugas claimed the pictures were gory, and lurid, and that Dr. Gikas was inflammatory, vindictive, and completely biased.

It is pretty difficult to make a dead man look pleasant. Physicians for Automotive Safety believe that every American should see this



demonstration, as you will, showing patterns of injury which can be avoided.

As this committee of the House of Representatives learns of this appalling tragedy in the epidemic of bodily injuries, we are confident that you will move for the survival of our patients, for the health and safety of the American people in a safer car.

Thank you.

Mr. MACDONALD. Thank you very much.

**STATEMENT OF DR. PAUL GIKAS, ASSISTANT PROFESSOR OF PATHOLOGY, UNIVERSITY OF MICHIGAN, AND CHIEF, LABORATORY SERVICE, VA HOSPITAL, ANN ARBOR, MICH.**

Dr. GIKAS. Mr. Chairman and distinguished members of the committee, I deeply appreciate the privilege to present this material to you today.

Accidents are exceeded only by heart disease, cancer, and strokes as a cause of death in the United States today. Of all the accidental deaths, the automobile accident is the most frequent type. There are two approaches to decreasing mortality from automobile accidents.

1. Prevent the accident from occurring.

2. Prevent or modify the injury sustained by the victim in the event that the accident occurs.

The first approach of accident prevention involves many factors since the causes of accidents are complex. All attempts at accident prevention are necessary and should be encouraged. However, we should realize that as long as there is a human being in control of the motor vehicle, there is a potential accident situation since human beings are subject to error.

This is not a negativistic approach; it is merely a realistic one.

The second approach, therefore, becomes very important because it assumes an accident will occur and stresses the importance of a "safer package" for the occupant of the vehicle. This second approach has been long neglected, and I personally believe there is a great potential for reduction of morbidity and mortality if this second approach of a "safer package" would be emphasized.

It is important to realize that 43 percent of the people that are dying on our highways today are dying under potentially survivable conditions.

I will show you slides to prove this. In our present state of medical knowledge, there are forms of heart disease and cancer which we can do little about. Deaths resulting from these afflictions are indeed tragic, but when a death occurs under preventable circumstances, the tragedy associated with this death is compounded.

In order to make recommendations for safer interior design and construction of vehicles and for the use of restraint systems, such as seat belts or shoulder harnesses, one must know the mechanism of infliction of the fatal injury.

In order to obtain this information, a research project sponsored by the U.S. Public Health Service is being conducted at the University of Michigan Medical Center. This project is involved with the investigation of fatal automobile accidents which occur in Washtenaw

County, Mich. The investigation team which consists of Dr. Huelke and myself, at the university, is called to the scene of all on-the-scene fatalities in the county on a 24-hour basis by the law enforcement agencies.

One must be dead to qualify for the study. We don't take personal injury cases because there are so many of them.

The victim is examined as well as the vehicle, and an attempt is made to correlate pattern of injury sustained by the victim with pattern of design and damage of the vehicle.

To date 177 fatalities have been investigated. These deaths were produced by 139 accidents. It has become obvious as a result of this study that there are essentially two ways in which a person is killed in an automobile accident. The individual dies as a result of being ejected from his vehicle or he dies from injuries sustained in the secondary collision between him and the inside of his vehicle.

For instance, it is not when your car hits the tree that kills you, but it is when you strike the inside of your car after your car strikes the tree.

Certain features of interior design have considerable influence on the type and extent of injury received by the individual in the secondary collision within the vehicle. Color slides will be shown to point out front and rear seat ejection deaths as well as deaths resulting from collision with lethal areas within the car such as instrument knob, gearshift level, header, door, and so forth.

I will now show slides of deaths resulting from ejection and from striking objects within the car.

MR. MACDONALD. How long a period of time will this require, Doctor?

DR. GIKAS. I can make it as long or short as necessary. How much time would you like to give me?

MR. MACDONALD. It isn't a question of being allocated time. I was just asking you how long the slides run.

DR. GIKAS. The slides would take perhaps 30 minutes.

MR. MACDONALD. Under the circumstances, we are sitting here by unanimous consent of the House and there is a bill on the floor. It is a bill that there is some controversy about and there will be a vote.

I certainly would like to see some selective slides, and I think I speak for the committee. I don't think we can spend 30 minutes at this particular time.

DR. GIKAS. I will see if we can select some, then.

(Slide.) This first case was an ejection death. This man was on a two-lane gravel road, in the winter, driving a 1961 Chevrolet. Incidentally, General Motors made the statement, in a book called "Design for Safety" that they introduced the safety lock, in 1955. They go on to say there has been rapid improvement in the lock since that time.

This is a 1961 Chevrolet and the door came open, 6 years after they introduced the safety lock.

I think you can see the sequence of events. He spun off the road, the left door came open and he was ejected and killed.

(Slide.) This is the car. You can see damage to the bumper assembly and the fender assembly, and notice that the door is open.



(Slide.) Here is the victim. He was thrown out of the car and pinned between the earth and the car. I mentioned that 43 percent of the accidents occur under survivable conditions. The most important criterion for survivability is space available in the vehicle after the crash. If there is no significant compromise of space in your car after your car has collided with another object, then we deem that survival could have occurred.

The roof is not caved in, the A-frame is not caved in, the door is not caved in. Had this man been kept in the car, he could have survived.

We project the size of the victim back into the occupant area of the car to determine if there is compromise of space and there is none here.

This tragedy is compounded by the information in the next slide.

(Slide.) This man was sitting on seat belts. He had them in the car but did not bother to use them. He was the father of five children. This was a completely unnecessary death. The death could have been prevented also, I think, if the door had stayed shut, yet it came open. This door allegedly had a safety lock.

(Slide.) This was another single-car off-the-road accident.

Incidentally, this driver had no license. I don't deny that most accidents are probably the result of faulty drivers. I say probably because we really don't know. The superficial way in which automobile accidents are investigated is that the vehicle is not checked, as in aircraft accidents. When an airline disaster occurs, the airliner, itself is gone over in great detail and reconstructed.

In automobile accidents, very little of that is done. For instance, the recent announcement by General Motors that they were going to call back a certain Chevrolet model to repair a stuck accelerator pedal went on to say, "We know of no accidents that occurred as a result of this."

Let me draw an example. Supposing you were driving one of those cars. Suppose you had gone through a stop sign because the accelerator pedal stuck. Suppose you had injured or killed someone as a result of going through the stop sign. Suppose you had been killed in this accident and suppose there were three witnesses that saw your car go through the stop sign.

How do you think this would have been written off on the policeman's report? As driver error, because you violated the stop sign. Yet if the car had been torn down and examined in great detail, it might have become apparent that the accelerator was faulty rather than the driver.

So I say probably the faulty driver causes most accidents.

I say probably because we really do not know the incidence of faulty vehicles because we don't gear our investigations to that. I say we should direct efforts against the driver, by all means, but we should also realize it is difficult to control driver behavior.

In the last four accidents I investigated in the county, two of the drivers had no licenses at all. One was driving on a revoked license and the other had no license. How do you control these people? Because it is so difficult to control human behavior, we should not give up, we should still try to do it, but we should also concentrate on the vehicle. The vehicle is the easiest factor to control.

This man went off the road, and rolled over and he was killed.

(Slide.) Here is the Ford car upside down in the ditch.

(Slide.) This is the roof of the car shown here. The car is upside down. This man was thrown out of this open door, his head was caught under the roof of the car. He died of a broken neck.

(Slide.) The car is turned over and see the depression but there is still no significant compromise of room. If that man had stayed in the car with a closed door and a seat belt he could have survived.

I would like to bring out this point: I mentioned the manufacturer's claim to have introduced the safety lock in 1955. I give them credit for that. I think the safety lock has helped. It is inadequate, it needs improving, but it has helped some. But they neglected to communicate with the driving public the importance of locking that door from the inside. Unless you lock the door from the inside, you are not bringing the safety lock into full play. Why?

Remember how you open your car door. You press the button on the side and pull the handle back. What if your car rolls over? The earth or a stone in essence becomes a thumb. It pushes the button in. If the door could be locked from the inside, many of these openings could be prevented, yet they have not publicized this to the public.

Here the industry had an excellent opportunity to show the public how concerned they were about safety but they did not take advantage of it.

Now more recently they are going into this. I have heard that from some of my colleagues in the industry.

This is death by ejection.

We will jump ahead because time is running short.

(Slide.) I showed you front-seat-ejection deaths. I want to go to a rear-seat-ejection death.

(Slide.) People think because they are in the rear seat of a car they are immune to ejection. This is not so. You can be ejected from the rear seat of a two-door car just like a four-door car. This car had a blowout. It went off the side of the road and struck an earth embankment. There were five people in the car and only one person died. The only person who died was the only person who was ejected. She was ejected from the rear seat of a two-door car. They came off the road, struck an earth bank, the car turned on its left side, went through a stand of bush for 40 feet, and at 20 feet the door came open and the young lady was thrown out.

(Slide.) This is the car. It was a 1961 Ford and the door came open. The mud on the door suggests the car was on its left side.

(Slide.) This shot tells us the car was not only on its left side but the door was open, because we have mud on the lock assembly and on the inner panel. We feel confident the door was open at that time.

(Slide.) This was the girl's only injury. The body is face down. This is the lacerated right buttock. She had no head, chest, or abdominal injuries.

(Slide.) She got that when she was thrown out of the car onto this fence post with the barbed wire. I grant that is an unusual set of circumstances but the whole thing could have been avoided if she had been kept in the car, with a door that would not come open, and with a seat belt firmly fastened.



I will skip cases and go to the secondary collision deaths in the car. (Slide.) This is a secondary collision death. Remember, there are two types of death, ejection and secondary collision. This man violated the yellow line. He was alone in his car. He had 15 previous traffic violations on record, yet he was still driving. He had been drinking. He went across the yellow line and struck a family car.

In the family car, a father was killed, a mother was killed, a 6-year-old child was killed, and four children were orphaned.

The violator survived. It was a Pontiac that they were riding in and a Pontiac collided with him. These were identical model cars. The odds against that are tremendous.

(Slide.) This was the family car. The father died against the steering wheel.

The mother died of a fractured larynx, the voice box. Just gently tap your Adam's apple. Imagine doing that at 50 miles an hour against steel. This is the relatively sharp edge on the dashboard of the Pontiac. She did not have a seat belt on, but with the seat belt on I don't think she would have struck her larynx but she still could have struck her face and received serious and possibly fatal facial injuries.

So the point is the seat belt is not a panacea. In our series we believe it could have prevented about 40 percent of the fatalities in our series, but not all without injury. Some of them would be alive and would still be injured, so we must have modified design in addition to the restraint system.

I said a 6-year-old child was killed. I don't know if the Congressmen can see this triangular depression, but there is a triangular depression in this instrument panel. This was produced by the chin of the 6-year-old girl. This girl became a missile.

There is a physical law which has never been repealed, and I am sure you remember it from high school physics, a law of inertia, a body in motion tends to remain in motion. If your car is going 30 miles an hour and it stops suddenly in an accident or stops to avoid an accident, the bodies in the car do not stop suddenly, they keep going, hence, the secondary collision.

What they strike influences the type and extent of injury. This girl catapulted from the rear seat and made that dent that you see there.

Tremendous forces come into play here. If this girl had been restrained in the rear seat with a seat belt she could have survived this accident. If this panel had been constructed with crash attenuation in mind, it may have been possible to have survived.

Remember, less than a third of the driving public wear seat belts. The industry certainly has the responsibility for putting the seat belts in. They did not actually put belts in until they were forced to by various State legislatures—New York, Wisconsin, and so on. But now that they have put these seat belts in because of Government coercion, the public has a responsibility to use them. The manufacturer has a responsibility to make the car more crashworthy, however, too.

(Slide.) This is another secondary collision. This was a 1957 Buick, with two teenagers, a boy and a girl. They went off the road and struck a tree. You may ask why they went off the road, and I don't know why they went off the road. I only know that people go off the road every day.

There are many factors involved here. For instance, if that tree had not been there, if they had gone off the road, decelerated in a cornfield or a wheatfield, chances are the only thing that would have resulted would be a muddy car. But instead, they hit the tree. One solution would be to remove all the trees, cut down all the trees, remove all the bridge culverts, the bridge abutments, the ditches. This would help solve the problem, but I think it is impractical.

When we build new highways we should by all means not repeat our old mistakes, and the Interstate System, fortunately, is not repeating all the old mistakes. They are repeating some, however.

To cut down all the trees, I think, would be an insurmountable task. When we consider how difficult it would be to modify human behavior, and how impractical to change all the highways, we come to the third factor, the vehicle. This is the easiest to modify. The two were killed.

(Slide.) This shows the tree.

(Slide.) This is their car. You can see the tremendous amount of damage here, but notice, gentlemen, that in spite of all the damage to the front of that vehicle, there is no significant compromise of occupant space. This pattern is often seen in front-engine cars. On cars with rear engines, this is not so.

For instance, when some of these small foreign rear-engine cars have a front collision, you are less likely to have as much space left inside. Space left inside, of course, is the important criterion for survivability. I was so convinced of that, that when I was a trainee in pathology, I drove in a small, rear-engine car to save money. I had the thing all paid for and when I started this study we investigated a fatality in which a small, rear-engine car was involved, and after I saw that, I went into debt and bought a big American gas eater to drive my family around.

(Slide.) The driver died against the header, the steel bar that joins the roof with the windshield. He struck it with his head and received a fatal brain injury. He did not have his seat belt on. The header can be struck in some full-size cars with the seat belt on, depending upon how tall the individual is.

In other words, if a short person is driving and you have a bench seat so the short person moves the seat up and a tall person is sitting in the right passenger area, he can hit the header with the seat belt on. This is what you may hit in a front collision. This is not an isolated case.

The padded visor which was introduced about a decade ago as an optional item (why in the world a device which has the potential to prevent injury is optional is beyond me—brakes are not optional on a car, so why an injury-preventing device)—was very inadequate.

Suppose you had the visor in a lateral position to shield the sun coming in on the side, which many people do. Then you expose the entire header. I had the privilege of consulting with the General Services Administration and participated in the writing of the standards for Federal cars for 1967 and I also participated in the conference held in December which was to revise the 1968 standards.

We did not get a padded header in the first instance. Actually, the 1967 standards are essentially making standard what was optional before.



The concept of a Federal standards is excellent, but the standards themselves are quite weak, and I say this with all due respect to the GSA people, not being critical of the GSA people—I think the people in GSA are conscientious, sincere, and trying to do a good job, but the odds are against them.

The most potent voices in GSA conferences belong to industry, and we did not get the padding. In the 1968 conference, I strongly recommended that the header be placed out of the way or padded. So now they are going to pad it. At least this came out in the revision of the standards, to put a half inch of padding on the header. I don't think that will be adequate, but that is what we ended up with.

(Slide.) A young lady died in this accident. Notice the tuning knob on that Buick radio.

(Slide.) Notice the mate to the knob is gone. Notice the blood-stain next to the knob. Where did the knob go?

(Slide.) This is an X-ray of the girl's skull. The knob completely penetrated her scalp, skull bone, and entered the brain. That was the fatal injury. There is the knob in the brain.

I know of no other language to describe this than "lethal design." We know from medicine, emergency room work, that a penetrating injury is usually more severe than a nonpenetrating one. If a person was going to be hit on the head with a flat board or an ax, they would take the flat board.

We know that a penetrating injury results from a force, concentrated in a small area. I assume the automobile designers and engineers are aware of this law of inertia I quoted, and I assume they are aware of these concepts of pressure (force per unit area) and penetration. I assume they know more about this than I do, since I have only had college physics.

So why do they continue to make cars with lethal objects in an area of potential impact? This is the question we, as physicians, are asking. We are tired of seeing repeatedly the same injuries over and over and over again. There is a specific reason why you are injured in a car accident.

It is not because someone waves a wand over the car. It is because you strike something inside the car or were ejected or the car caved in on you. There is a definite reason for it.

(Slide.) You can't see this, but this accident I will explain to you, and you will see it in the next slide better. A lady went through a stop sign in a fog.

(Slide.) Again I point out driver error probably accounts for most accidents. But good people cause accidents, too. You don't have to be a "nut" to cause an accident. I am sure that "nuts" play their role, but good people have accidents. Good people go through stop signs, not intentionally, but because they have a lapse of attention or something.

Just because a good person happens to do that, or because a "nut" happens to do it, it shouldn't necessarily always follow that he injures someone or injures or kills himself. With a crashworthy vehicle, many of these accidents can be without injury.

This lady went through a stop sign in a fog. A small child sitting on the lap of an adult in the right passenger area became a missile.

One principle which is known in this accident investigation work is that in an accident, the resultant forces are such that the initial path of the body is to the point of impact.

In other words, if your car impacts left front, all the bodies in the car initially fly left front. There may be ricochet patterns after that which are harder to predict. The initial path can be predicted with great accuracy.

This lady impacted left front. The child was in the right front area. This is the gear shift lever. I don't know whether you can see it. This is the gear shift on this Ford car. It has a bloodstain on it. This gear shift lever acted as a dagger. This penetrated the child's throat, went through the lateral wall of the throat.

(Slide.) It came out beneath the middle cranial fossa.

(Slide.) Again, the technology is presently available in the industry to eliminate this hazard. For instance, Chrysler had a push button system which completely eliminated the need for a sharp stick on the end of the column. As a matter of fact, my car has a push button system and we are happy with it. Allegedly it was a result of a public opinion poll that Chrysler abandoned this push button system and has now gone back to these sharp, dagger-like objects.

In my testimony before the Michigan committee in Lansing, and during that day of testimony, I was the only critic against industry, I had 1 hour and the industry had 8 hours, Mr. Bugas was so inflamed from the pictures that I have shown that he departed from his prepared text to impugn my integrity and objected specifically to my calling a gear shift lever a dagger.

All I can say is that when you find a piece of steel that has penetrated a child's throat, Mr. Bugas can call it a gear shift lever if he wants, but I prefer to call it a dagger because that is what it is.

This man was in the car. He was a car salesman. He struck this tree, a small tree, knocked it over, became a missile in his car. He flew over to the point of impact. You see from the inside he went down and knocked off this hardware here. The amazing thing here is when you look at where he came from—this is where he came from. There is no damage at all. This was a new Chevy.

If he stayed over there, he could have survived. There was no seat belts in this car. This is another case of preventable death.

Mr. MACDONALD. Was that glass that he went through the so-called safety glass?

Dr. GIKAS. Yes, sir; that was 1963 safety glass.

The CHAIRMAN. Would you comment on the safety glass?

Dr. GIKAS. The safety glass in the windshield is the sandwich type which supposedly prevents shattering and breaking up with sharp pieces which can cut the individual. The safety glass we have on cars now in my opinion is inadequate. You can actually go through the window and be caught there. We have seen the glass collar effect. The head goes through and comes back. You essentially have a glass collar of sharp jagged edges around the neck. This is not ideal. The ideal glass would be glass which had enough elasticity to decelerate the head, at something like 30 g without allowing penetration.

You realize these are very tight, rigid requirements, and they may seem pretty severe, but my opinion is not enough effort has been di-



rected in this area of developing such a windshield. We have the technology in this country which has us on the verge of landing a man on the moon, and we have the technology which develops an automatic transmission in a car which can go 40,000 or 50,000 miles without any attention.

Yet why can't we develop a more elastic glass or any other device here which will prevent injury—in my opinion this has not come about because not enough effort has been directed into this area. It has been directed to styling and to other areas.

This is a steering wheel death. This occurred on an interstate highway and a "No U Turn" sign was visible. A truck made a turn right in front of this "No U Turn" sign. This truckdriver had been convicted of a "No U Turn" violation a year previously and he did it again. Two boys were coming along in a Mercury. The speed limit is 70 miles an hour day and night. The boys smashed into the rear of the truck and both boys were killed.

Keep in mind this sharp angle here on the back of that truck. Notice the right front fender of the Mercury is still on the truck. We would like to see some type of bumper dropped down here. When you collide with this type of truck, you slip underneath.

Attorney General Scalise of Iowa who testified earlier, is concerned about this because in Iowa they have this problem. The car slips underneath and the point of collision is way up in the windshield area.

If these trucks had a bumper behind them, it may help dissipate the force of the impact up front.

You see that in this next slide. The right angle corresponds with the back end of that truck. The main impact was up there. Certainly there was damage here and he impacted here because it threw the steering wheel back.

The steering wheel in this Mercury came back. In our series, the steering wheel is a real culprit as far as the driver is concerned. About half of the deaths in our opinion could not have been prevented even if the driver had an upper torso restrainer because of the rearward displacement of the wheel. The wheel can kill by breaking the neck. The wheel column kills by injuring the chest, the heart, lungs and so one and the lower rim of the wheel injures the abdominal organs.

There is not enough room here for you, your liver and the steering wheel. It is questionable whether a seatbelt would help at all. Here is a picture of the injured liver.

We are happy to see that General Motors has finally announced they will make a change here on the 1967 cars.

Much energy and effort was spent in this area. We ended up with 1967 Federal cars with a steering column which will not displace more than 5 inches in a 20-mile-an-hour barrier collision. We think this is a very, very modest request, and we hope to raise that to 30 miles an hour in the new standards and maybe even higher.

Since time is short, let's get on. I want to show some new cars.

Mr. MACDONALD. Doctor, I am sorry to have to interrupt you. As you can see from the bells, we have a yea-and-nay vote on the floor. I think we will take a recess and try to be back by, say, 3:30 or 25 minutes of 4. You may continue at that time.

The hearing is recessed until 3:30.

(Whereupon, the committee recessed until 3:40 p.m.)

Mr. MACDONALD. Dr. Gikas, will you continue with your testimony?

Dr. GIKAS. I want to point out again what steering wheels can do to injure people. This was an accident on a two-lane highway near Ann Arbor, Mich., with a 1963 Plymouth. The car went off the road and hit these trees.

This is the car. The driver ended up dead in the rear seat. Notice the steering wheel. The wheel, itself, is broken and the column is exposed. The column causes havoc to the chest.

This is the man's chest showing the depressed fracture of the sternum.

This is the ruptured heart, a complete rupture of the right ventricle. There was no penetration here. No foreign body went through the chest but compression of the chest blew the heart out.

This is the aorta. There was complete laceration again from collision with the steering wheel. That is why an energy-absorbing steering wheel is so important. That is why it is important that Federal regulations consider this.

Here is another steering wheel injury.

This is a man's chest. This is the man's face. Complete fracture through the orbit. This was just from the spoke of the steering wheel.

Much attention must be devoted to the wheel.

(Slide.) This is a knee injury. It was not fatal, but it can be very painful. In my opinion 99 percent of these knee injuries could be eliminated if people would wear seat-belts and if the underpart of the dashboard would be modified with crash attenuation in mind.

Seatbelts may stretch 8 to 9 inches on impact. With modified design of instrument panels, many of these knee injuries can be reduced.

(Slide.) This is a death against a visor mounting. This was a Plymouth and a man was in a collision and his head struck this U-shaped visor mount. It would do no good to have a padded visor. He hit the U-shape mounting.

This is a side collision. The front of this car hit the side of this car. This car was in this position. They ended up in this position. The innocent man survived and the violator was killed. He had been drinking and came across the centerline.

Here is the car pushed up on the rear end.

This points out the vulnerability of sides. This was the driver. It shows the impact on the side. The sides are very vulnerable. The front can take a lot of damage, but that is not true with the sides. The sides of cars tend to cave in.

I hope the prototype safety car will take that into consideration. He went to the point of impact, jackknifed through the door window and was killed in this collision.

Look how far the side caves in. It is questionable, even with a seat-belt whether this man could survive.

(Slide.) Head injury and chest injury was suffered by this man. He, too, sustained a ruptured heart from hitting the side of the car.

His liver was completely severed when he hit the door of his car as the side came in.

This is an unsurvivable crash. (Slide.) This is the last accident I will show. I point this out to stress that in my opinion there are certain accidents which are unsurvivable.



Everything I have demonstrated so far, in my opinion, could be survived if the person wore a seat belt or shoulder harness, and if the interior of the car were constructed with crash attenuation in mind.

This case, in my opinion, is unsurvivable. I think it is unreasonable to expect a manufacturer in the present state of knowledge to construct against this type of punishment. These men went off the road at 60 miles an hour or above, sideswiped a tree, went down a drainage ditch and sideswiped another tree. Both were killed. The trees shed bark, but they don't bend.

This is the rear wheel. This is the driver's face, his nose; that is his left hand. The tree is in the driver's face. This is what I mean by violation of occupant space.

The car is pulled away. This is the rear wheel. This is the front wheel underneath the driver's seat. This is unsurvivable. I use this as a baseline to compare to the others.

They had seat belts. They were not used. They would have been of no help.

This is a safe-driving slogan from our sheriff's department.

I would like to go on. It is concluded that ejection and certain features of interior design, particularly dash panels, projecting knobs and levers significantly influence the type of injury received.

In the past there have been sporadic attempts by the automobile industry to offer certain safety features in their automobiles. There have usually been offered as optional rather than standard items. The very fact that a safety device, such as a padded instrument panel which has the potential for preventing or modifying certain injuries, is offered as an optional piece of equipment rather than a standard item is appalling. Safety features, whether of the operational type such as brakes, directional signals, and so forth, or of the crash attenuating type such as recessed instrument controls, padded visors, and so forth, should be standard items.

Recently one manufacturer embarked on a large-scale advertising campaign to inform the public of their efforts in automobile safety. Although only a small portion of this "safety advertising" is concerned with crash attenuating features, they do mention that nine safety items will be standard equipment on their cars. Other safety items are only available on the 1966 model cars on an optional basis. The Federal GSA standards provide for 17 safety items which must be present on cars purchased by the Federal Government. Why are not all 17 safety items available as standard items on all cars purchased by the general public? Why should only Federal employees be offered this added protection when riding in cars?

It is encouraging to see that even a few safety items are now standard in 1966 cars, items which should have been standard at least a decade ago. There still remain, however, many unsafe features in current model cars. Slides will be shown that demonstrate 1966 model cars with hazardous interior features which have the potential for inflicting serious injury. I am convinced that even these very modest safety offerings by the industry are due to the mounting pressure on the auto industry which has resulted from Federal and State hearings on the subject of automobile safety or better stated—the lack of automobile safety.

I want to show these last few slides to point out current unsafe features in current model cars.

Perhaps the gentlemen on the committee drive some of these cars, and I mean no offense. I am merely pointing out the potential hazards in these cars. The early cases I have demonstrated previously have to do with accidents which actually killed people. This was not make believe. I pointed out to you what killed people in specific accidents.

I am going to show you current model cars.

I would like to preface the showing of the General Motors cars with this statement. I am quoting from GM's booklet called "Design for Safety." On page 41 it says:

In all aspects of producing automobiles no consideration is more important to us than safety. This has been so in the past and will continue so in the future.

Keep that statement in mind as you look at these cars.

This is a 1965 Grand Prix. (Slide.) Incidentally this is not my car. This belongs to a relative on my wife's side. I showed you how a little girl was killed when her chin struck an instrument panel of the Pontiac in this area. She died of a fracture. She had on no seat belt.

These are three cylindrical sharp housings. They are essentially dull axes. They house gages in this area. It is in an area of potential impact. It costs money to put those things there. One of the arguments the industry uses is—if we put on all of the safety devices the critics call for it would cost too much money, making the price prohibitive.

Here is an example where the price of the car was raised and made less safe. These are purely decorative. The car could be made cheaper and more crashworthy without these.

This is the back of the front seat in the 1965 Grand Prix. Gentlemen, keep in mind that the back of the front seat is essentially the instrument panel for the rear seat occupant.

Suppose you are a prudent individual and you have a seat belt on in the rear seat and the car stops suddenly. Maybe your car merely stops suddenly to avoid an accident. What happens to the occupant in the back? The person can go forward and strike not a soft upholstered seat but a hard decorative metal bar. I know of no useful purpose it serves.

It is there purely for stylistic reasons, it raises the price of the car, and it makes the car less crashworthy.

I have had talks with some General Motor people. One of the General Motors executives said you will never see that type of thing on General Motors cars again. This is the 1965 car. We are glad to see General Motors admits this is unsafe but Ford still has it on 1966 cars.

From now on we are talking about 1966 current model cars. These are the cars General Motors prides themselves in saying they meet almost all of the GSA standards.

(Slide.) This is a 1966 Buick Wildcat. I have a seatbelt on the front seat firmly fastened. The seat is in a comfortable driving position for a driver 5 feet 9 inches tall. Look where my head goes. I miss the padding entirely and I strike a sharp metal edge in a 1966 car with a seatbelt on. This points out the inadequacies of the standards.

Mr. MACDONALD. When you say seat belts—



Dr. GIKAS. I have a lap type seat belt.

Mr. MACDONALD. Would the shoulder type of seat best prevent your doing that?

Dr. GIKAS. Yes, but the problem is less than a third of the people wear seat belts, so I don't think we can get many to wear a shoulder belt.

I pointed out to you what a gearshift lever can do. I showed you a little girl killed with a Ford gearshift lever. This is a sharper gearshift lever than on the Ford. The 1967 GSA standards call for the gearshift knob having a minimal surface area of one square inch with a curve off of a specific radius. GM prides themselves in meeting almost all of these standards. This is one they don't meet and they could meet it without a model change. All they have to do is screw on a larger knob. The larger the knob the less surface penetrating area. That is why ideally it would be better to go back to the push button system. This is a 1966 Buick Wildcat.

I want to quote again from GM's book:

Taillights and directional signals which are perhaps the most important of auxiliary lights, are designed just as carefully and scientifically as the headlights. It is as important to be seen as it is to see, and that is the job of the taillights.

Look at the taillights on this 1966 Buick Wildcat. From the side you can't see them. Some of the cars have lights wrapped around so you can see them from the side. I maintain it is important to have the signal coming from the side. What if you drive across an intersection at night? Say your car stalls. You are left at the mercy of the oncoming driver until he can see you in his headlights before he applies his brakes. I maintain if he had an additional signal of a taillight visible from the side he may be able to see you sooner and enable him to stop, making the difference between having an accident and not having an accident.

Once a safety item appears the public has no assurance it will continue without legislation.

The 1968 GSA standards I hope will make it mandatory that the light can be seen from the side.

That is the end of the GM cars.

Ford is not to be outdone.

I would like to quote from the Ford ad which appeared in the December 31, 1965, Time magazine. This is a 12-page supplement and incidentally much of this, if not most of it, is devoted to the driver. It is concerned with making a better driver. "Designing and engineering extra safety into our cars has had top priority at Ford for many years. That is why Ford-built cars were the first to introduce the safety package over a decade ago." They neglected to say it was optional. Let us look at some of the "safest cars" in Ford history.

This is a 1966 Ford Mustang. I have a seat belt on in the right front passenger seat. In a collision my head could go down and strike the "four on the floor." This could produce injury. I don't think that is just speculation. Your head could get over there. My head does get over there with a seat belt on.

(Slide.) I showed you what a gearshift lever can do. This is a 1966 Ford. I have a seat belt on in the right front seat and I can flex over here and my head is against the gearshift.

This is almost unbelievable. This is the rear seat of a 1966 Ford car. I have a seat belt on in the rear seat and my head is against this sharp coat hanger hook. I have not seen an injury from this, but it could certainly happen. I say it is almost unbelievable. This raises an interesting question. A safety engineer supposedly has a moral obligation to point out to whomever is employing him the unsafe features of the product or the job or whatever he is being asked about. How a safety engineer could miss something like this is beyond me. If he does not recognize the potential hazard in such a device, then I question his competence. However, if he does recognize the potential hazard of this device and he tells his superiors and they ignore him, this points out how impotent the safety engineer is in the hierarchy.

I know as the result of the hearings held in Washington, New York, Iowa, the State of Michigan and so on, the stature of the safety engineer in his own company has increased considerably. I visited one of the safety engineers and he shared a little cubbyhole office. Of course, the vice presidents have big plush offices with carpets. Actually a wise magazine photographer could go in and take a picture of a safety engineer's office and a vice president's office and publish it, and I think it would help the cause of safety.

Now finally some of the safety engineers are getting more power and more spacious offices.

I showed you what a header can do to a car and to an individual. I have a seat belt on in the front seat of this 1966 Ford. My head can strike the header.

(Slide.) I mentioned GM's chrome on the back seat being a hazard. Ford is hanging right in there. This is a 1966 Ford car. I have a seat belt on in the rear, but my head still hits the metal bar on the back of the front seat.

This is my wife. She has a seat belt on. This is a 1966 Thunderbird. You pay more for this hazard since it is a high-priced car. Her head strikes the decorative metal bar.

I showed you a visor mounting that killed a man by injuring his brain. This is a 1966 Ford. I have a seat belt on in the front seat and I strike the visor mounting. This is a proven hazard. These are the safest cars in Ford's history according to their own words.

(Slide.) This is a 1966 Thunderbird. I have heard that two States have laws which make it illegal for the driver to exit his car on the street side. This Thunderbird console makes it very difficult for one not to violate the law because if you get out on the curb side you have to climb over all of this hardware here. I wonder if their safety engineers considered that when they designed it.

Another hazard is I have a seat belt on in the right front seat firmly fastened. Look what my head could hit in a left front collision. If the car collides left front you go to that area. With a seat belt on this is what I could hit—sharp levers in this area and this could hurt, believe me.

These are the safest cars in Ford's history. Not to be outdone by GM, the rear of the Thunderbird is very similar to the rear of the Buick Wildcat. You cannot see the tail light from the side.

That is the end of the Ford cars.



GM makes the statement that in all aspects of producing cars no consideration is more important than safety. I assume the marketing of the car is considered in this total asset and look how they market their products.

This is a Pontiac Tempest painted like a tiger. A tiger is a wild, ferocious beast. I don't think this contributes to the cultivation of an attitude of safety in the driver. I like cats and I have a litter of Siamese cats at home but to have a tiger in the garage or on the highway—well—that is too much.

Here this tiger has teeth on it. This is from an industry which is concerned about safety in all of its aspects.

When the industry finally does add certain safety features as standard equipment or if they delete certain unsafe features, such as I demonstrated in the slides today, the public has no assurance these additions or deletions will remain in future models without the stimulus of legislation. By past performances, the auto industry has abdicated its responsibility to provide safety devices voluntarily. As I mentioned in my opening statement, accident prevention is a complex problem. It involves the modification of driver behavior, highway design and construction, and the vehicle. All three aspects are important and should be emphasized, but in my opinion the greatest potential for a reduction in morbidity and mortality lies in making a more crashworthy vehicle.

I base this opinion on two points:

1. Relatively little real effort has been extended in the past in the field of crash attenuation and the application of known safety principles by the auto industry. This is relatively virgin territory.
2. The vehicle can be modified with much more facility than either driver or highway because of the difficulty one encounters in trying to change human behavior and the tremendous expenses that would result from trying to modify all of our existing roadways.

It is important to realize that a faulty driver may cause the accident, but the vehicle produces the injuries.

I am sure if you were taken on a tour of Detroit they would show you all of the elaborate facilities they have for testing cars and so on. Much of this is quality control, testing component parts of cars. This is important but how much have they done in crash attenuation? Very little; but even what they have done they have not translated it into the product. This a problem. It is a problem of lack of translation.

#### RECOMMENDATIONS

1. Legislation which would require that all new cars sold in the United States meet safety standards of the operational and crash attenuating type prescribed by a competent agency of the Federal Government. Let industry compete on how well they can meet the standards.

Industry has said—previous to their statement this week—that they were opposed vehemently to the mandatory standards because it would stifle the industry and the economy. I don't think so. First of all dead people can't buy cars and nearly 50,000 people are being lost on our American highways today. If we can keep some of our people

alive we will have more people around to buy cars. Also, the industry could still exert their competitive efforts that have made it as great as it is. Let them compete on how well they can meet the standards. Let them sell safety. When you buy a car now they hasten to tell you how much horsepower it has and how much torque it has. Do they tell you what force it takes to have the door spring open? Do they tell you at what force your head will go through the windshield? Do they tell you how strong the roof is?

The prudent individual who may select a car on the basis of safety features has no information upon which to base his selection.

My second recommendation:

2. Offer Federal financial support to the New York State prototype safety car project so it can proceed to completion. A wealth of information could be learned from such a prototype safety car which could be applied by the auto industry to their production models. Such a safety car project as initiated by the State of New York offers a fresh and unbiased approach to the principles of crash attenuation. The information obtained from the crash testing of such a car would be of inestimable value to a Federal agency such as the General Services Administration in the writing of safety standards. The present GSA standards are heavily influenced by the automobile industry and consequently are watered down.

To cite a specific meeting, at the December meeting of GSA which I had the privilege to attend, one of the recommendations was a headrest to be introduced as a safety item on all Federal cars.

I am sure you are aware of whiplash injury. This is hyperextension of the neck. This can be prevented by putting in a headrest. Who objected most vehemently to this? The representative of the Ford Motor Co. He objected specifically to the term "safety headrest." The other members of the industry did not object like that but for some reason Ford objected vehemently to calling this a safety headrest.

Recommendation No. 3.

Federal support to local communities for more complete investigation of motor vehicle accidents by competent teams of investigators so that more accurate data can be obtained concerning accident causation and injury causation.

I alluded to the reason for this earlier. I cited the example of the very poor way in which automobile accidents are investigated. We don't investigate the car accidents like they do airline crashes and I cited the case of the Chevy.

One executive vice president for one of the major companies and Mr. Bugas, the Ford vice president, wanted to know why we are crying for safety now. They asked me why I make so much noise about safety now. Why wasn't I doing this 10 years ago? First of all, 10 years ago I completed an internship at \$55 a month in Philadelphia. I started a residency for \$145 a month but that is beside the point. Where was the auto industry and Mr. Bugas 30 years ago when a plastic surgeon cried right in the motor city about crash attenuation? Where were they when Professor Woodward, a distinguished laryngologist, complained about repeated facial injuries and design hazards in cars years ago? Where were they when Dr. Horace Campbell, a prominent surgeon, complained about the unsafe vehicles? These complaints fell on deaf ears.



The industry has incorporated safety into their industry: in the machines that the men make the cars with.

I worked on the Oldsmobile, on the assembly line, and I was impressed with the safety engineered into the machines. There is a press there that stamps out whole fenders about half as high as this room. It takes two men to feed the sheet metal into this press. How is the press activated? How does it come down? Both men have to have four hands on the button to initiate the press coming down. Where are the buttons? Behind the men. One man pushes two and his partner pushes the other two? Why is this? It is obvious. It is to compensate for human frailty, to prevent tripping the press while some poor man has his head or arm in there. They have modified the machine to compensate for human frailties, but they have not done it with the product, the car itself. Safety is not foreign to the industry. It is merely foreign to the product.

I have completed my testimony, Mr. Chairman, and I wish to thank you and the distinguished members of the committee for your patience in listening to all of this material. I consider it a privilege to be able to present this and I hope it has contributed to the passing of legislation, which I hope will help eliminate this problem.

Mr. MACDONALD. Thank you very much, Doctor.

You have a third member of your team. I understand you are putting the testimony in as a group, is that correct? If so, we will withhold questions that the members might have until such time as your colleague can finish.

Dr. BEVER. Mr. Chairman, distinguished members of the committee, I am Christopher Bever, a psychiatrist practicing here in Washington, D.C.

Drs. Constadt and Gikas have shown the epidemiological and pathological aspects of automobile accidents. As a psychiatrist I have a somewhat different focus. During my hospital days, I, too, had to deal with the injuries due to the automobile. But specifically as a psychiatrist, I have been concerned with the psychological causes and consequences of accidents. There are obvious psychiatric problems in driver licensing and clear emotional aspects of effective driver training and safe driving practices.

We have seen some horrible pictures of the physical effects of accidents. We all have read and heard the awesome statistics of highway injuries and deaths. Economists have calculated the national cost, the financial burden of this epidemic. We tend to ignore and forget the intangible, but nonetheless real results—the human suffering of the injured and of their families, the long-term social and emotional disruptive repercussions.

Striking with random impartiality, accidents distort careers, unsettle the fortunes of families, leave a legacy of grief and guilt. As a psychiatrist I have seen patients whose lives were profoundly affected by accident in which they or their relatives were involved. One woman's life was permanently marred by an accident as a 4-year-old; she sat on her mother's lap when the car went off the road. The mother was killed. She was not physically hurt; but she was loaded with irrational guilt.

No matter the phase of medicine in which a physician may work, there is responsibility of care for those affected by the present epidemic.

As chairman of the Washington section of Physicians for Automotive Safety, I am pleased to present our prescription for the most important countermeasure in our mission to prevent bodily injuries.

Last year we were a spontaneous group—this year we are a national organization. Physicians for Automotive Safety has undertaken a national campaign to channel the skills and influence of our profession in a program of preventive medicine. Regional chapters are being established to work closely with the local medical societies. From physicians can come the initiative and support for community education and action programs.

Physicians for Automotive Safety ask that the prescription by the Congress for treatment of this pandemic include:

1. The administering secretary should have clearly outlined duties with empowering authority and means of enforcement. He should make an annual report to the Congress. In the range of his decisions affecting the public health, he should seek consultation from an advisory commission, so constituted as to provide full representation of the public interest. On this commission should be representatives of the medical, engineering, legal professions, and consumer groups.

2. Mandatory national safety standards should be established with dispatch to effect the earliest possible model year. There is substantial available technology which can be applied now without further delay and research. There should be set procedures for inspection and certification. Revision and extension of the standards should be a continuing process following experience and research developments.

3. Car owners should be informed by all manufacturers (domestic and foreign) of the safety and collision protection afforded by specific performance standards and design features.

- (a) Where defects in design and performance are determined through marketing and investigative experience, the manufacturers should inform the Government and the car owners of these faults.

- (b) As customary with drugs and aviation, recall of the defective product should be mandatory. Correction of the defects should be the responsibility of the manufacturer.

4. Research and investigations in automotive medicine and safety should be established.

- (a) Prototype safety car projects. The Federal Government should conduct its own safety car project and simultaneously encourage and subsidize independent private and State safety car projects. These projects are urgent to bring fresh independent initiative and expertise in the development of crash protection for our patients. These safety cars should be crash tested in sufficient numbers. Quality and safety performance standards will be advanced. These can be used as reference criteria by industry, Government, and the public.

- (b) Promote and subsidize on-the-spot accident and injury investigations by multidisciplinary teams to salvage the clinical material now lost by superficial traffic reporting systems.

- (c) Establish methods and procedures for compilation of epidemiological data. Reliable statistics on mortality and morbidity need to be developed to facilitate future preventive programs.

- (d) Establish at several university centers coordinated medical and engineering research projects on automotive safety. With few excep-



tions there has been slight attention at the American educational centers.

(e) The funding for standards, research, and investigation needs to be extended. Compared to the hundreds of millions provided for title III, only a few millions are allocated for title I and II.

This Committee on Interstate and Foreign Commerce has an historic opportunity to assist the most important health legislation of this Congress. Public indignation has set the stage, but Physicians for Automotive Safety holds that H.R. 13228 will bring only disappointing performance. The American people must be spared another decade of agony from the automobile.

Thank you, Mr. Chairman.

Mr. MACDONALD. Thank you, Doctor.

Mr. MOSS.

Mr. MOSS. Mr. Chairman, I want to express my appreciation to the Physicians for Automotive Safety and their spokesmen today. I think the presentation, Dr. Gikas, you gave the committee was most helpful. I was interested in the lack of any discussion about the external design. We are concerned about the 50,000 deaths. There are many more times persons injured by the automobile in their role as pedestrians, and I have seen a few years ago a series of pictures which graphically illustrated the role of the automobile as a weapon. Have you made any studies on this?

Dr. GIKAS. That is certainly very important. Our study has been confined to occupants of vehicles. There was a study done. Mr. Henry Wakeland who is in the audience now was a member of Senator Speno's group this morning. He did not testify but he came along with the team. He has been concerned about pedestrian injuries, and helped conduct a study in New York City which has a serious problem there with pedestrian deaths.

There is no question about it that the exterior design and construction of the vehicle certainly can contribute to the type and severity of injury.

I think Mr. Nader pointed that out most dramatically in his book. He describes the lethal nature of the sharp tail fin on certain Cadillac models. He describes where a little child was riding a bike and inadvertently bumped into the car. She died as a result of striking this.

Mr. MOSS. You do not have to have a lot of force if you have a sharp object. I have in mind the interior picture you showed of the 1966 Ford. A very minor force could cause a rather serious injury if the head were directly against that.

You talked of the need for better side lighting. Do you have any observations on the effect of excessive headlighting? I am perhaps growing a little old but I find that meeting four lights head on is an unnerving experience and yet cars are loaded down with more candlepower than is required particularly when they are driven by persons who are not aware that there is a dimmer switch and if we are going to have that much candlepower on the front end, shouldn't we have automatic dimming devices and not rely upon the driver to undertake that role?

Dr. GIKAS. I share your concern and I have experienced the same blinding effect from headlights that are maladjusted pointing into my

eyes, but I am really not competent to speak in this area. I am not a vision expert, but I share your concern.

Mr. Moss. Again, Mr. Chairman, I want to express my personal appreciation for the helpfulness of these gentlemen.

Mr. HARVEY. I would also like to express my appreciation and commend them for a very fine statement, Mr. Chairman. I have no further questions.

Mr. MACDONALD. Mr. Rogers.

Mr. ROGERS of Florida. I think your pictures bring home the problem as vividly as any I have seen. I am glad you think there should be an advisory commission. Personally I think there should be a Presidential Commission appointed to advise the President on this.

Dr. GIKAS. The Federal Government should have the upper hand in this. This Commission should be empowered to make the standards mandatory and they should certainly let the industry consult with them. I think the industry should have a say in it. It is, after all, their product. I am not questioning their competence to build mass-produced automobiles but the industry should not have the final say. As much respect as I have for the GSA people, they have done an excellent job, but they have a tremendous job to do. The industry is so powerful and they come there in force and at least by sheer numbers they exert more influence than we do.

For instance, at the meeting last December Dr. John States, orthopedic surgeon from New York—who was to testify before this committee, if I am not mistaken—he and I were the only physicians there. The industry just had too much to say. Essentially the SAE standards written by the industry are being extended into the sphere of the GSA.

Mr. ROGERS of Florida. I feel a Presidential Commission will get it out of this area because then they wouldn't have to listen to anyone except those appointed to look after the public interest.

We say there should be set procedures for inspection and certification. I thought it would be difficult to get through a Federal inspection program. I had the feeling that if we would look to those who sell cars secondhand and require a certificate of safety to be placed on those vehicles before they are sold then this could get at the problem fairly well as a beginning. What would be your reaction to that?

Dr. GIKAS. You are talking about the maintenance of the car after the car has been sold?

Mr. ROGERS of Florida. Yes.

Dr. GIKAS. Some States do this now and I think there is a need for it, but there are many pitfalls here. It depends upon what you are requiring in your safety inspection. For instance, I know of a case where a car was rejected because there was a little fracture, a little break or chip in the windshield. These things can be carried too far. You get special interest groups involved in what should be on a car and what shouldn't be.

Mr. ROGERS of Florida. Suppose the standards were set by a national commission?

Dr. GIKAS. I would be in favor of that, basic standards.

Mr. ROGERS of Florida. If we are just talking about new cars we are not getting into the problem at all.



Dr. GIKAS. And I think there should be some latitude for various parts of the country. In some parts of the country certainly deicing devices are very important and in other parts they would not be important, but there should be some minimum standards for the operation of the car. I think this would be ideal with enforcement by the States.

Mr. MACDONALD. Mr. Younger.

Mr. YOUNGER. Thank you very much.

I have heard the testimony and I think it was very worthwhile.

Mr. MACDONALD. Mr. Mackay?

Mr. MACKAY. I want to add my word of appreciation for your appearance today. It reflects a sentiment I find in the medical societies in my own area. Doctors have reported to me their personal grief over young people becoming paraplegics, quadraplegics, vegetables, often totally disabled persons. I don't quarrel with anything you have to say. I think it is worth noting that we interrupted this hearing today on human safety to vote for a bill to prohibit dognapping which was brought about by a story in Life magazine published this year which showed how badly dogs were physically mistreated. It is obvious that there has been an embargo on photographs such as we saw today when you dramatically illustrated what happens to a person in an accident. This says something about our values and our journalism. I simply mention it for the record because it shows that we perhaps don't have human safety in traffic in proper perspective.

In order to spare the rest of the committee and everybody, I have prepared 28 questions which I would like to submit to your organization with an invitation to you to respond to them. If you do, I will then later ask the committee if they may be inserted in the record.

(The reply to Mr. Mackay's questions, when submitted, will be found in the committee files.)

Mr. MACKAY. I have been somewhat frustrated because although so much of the testimony has been important, it has had to do with causative factors and technical aspects of highway accidents and injuries. We have had too little discussion about what we can legislate in terms of an effective instrument of Government to get at the problem. That is essentially what our role is. It is not the scientific role.

First, can you agree the Congress should require an agency of the Federal Government to gather the data necessary to make hard judgments as to the causes of accidents and the causes of injuries?

Dr. GIKAS. I think it is needed. We have it in the FAA.

Mr. MACKAY. Have you found such reliable, complete data from public or private sources other than that which you gathered yourself?

Dr. GIKAS. This was our own data. The Cornell data, of course, has been available, at least to scientific groups. I guess there is some criticism of it not being available to the public but there is certainly a lot of data there.

Mr. MACKAY. Would you agree this should be mandatory? The administration bill only authorizes the Secretary.

Dr. GIKAS. I think it should be mandatory.

Mr. MACKAY. Secondly, do you think the Congress should require an agency of the Federal Government to do coordinated comprehensive gathering of research, not necessarily the actual research, but at

least known what is going on in the country everywhere that touches on the subject.

Dr. GIKAS. Yes. Like a clearinghouse for research.

Mr. MACKAY. The third major point on which there seems to be agreement is that there should be a system of grants-in-aid and national leadership in building a traffic safety environment.

As I say, I don't criticize the emphasis on the vehicle you have made and some others have made you have really not talked much about the elements that contribute to accidents such as poor signs, poor highway design, inadequate training, trees, and that sort of thing.

There really is an issue that has developed between the administration and some of us who support another approach. It is whether or not there should be an FAA-type agency that has the explicit responsibility to be the point of contact for everybody who is interested in traffic safety.

Do you think that we can fashion an FAA-type agency within the Department of Transportation or Commerce or whatever department it gets into? Do you see any problem in providing a focus of responsibility and leadership in Federal establishments?

Dr. GIKAS. I am not enough of a political scientist to comment intelligently on that. There is certainly a great need for dissemination of information down to the driving public for modifying the driving habits of the public. Whether this can best be done by the individual States or whether it should be done by the Federal Government, I just don't know.

Ideally it should be done by the States, but if the States do not have funds to do it or do not see fit to do it, then I feel the Federal Government will have to take up the ball and perhaps this should be included in the new agency of transportation.

I am concerned primarily with the need for mandatory standards. I think this is where the Federal Government should be involved like they are in the aircraft industry. These would be crash attenuating standards and operational safety standards.

If we had 50 different States devising 50 different sets of standards, this would be a crazy quilt. It would be impossible for industry to comply so we should have a uniform approach to it and the Federal Government is the obvious approach.

As far as getting into driver education programs and so on, if the local States need financial help, then I think it should be forthcoming from the Federal Government to do it but whether the Federal Government should specifically prescribe courses that should be taught in driver education and so on, I don't think it has that role.

Mr. MACKAY. You did not comment on the possibility of better information being provided the operator of the vehicle. I notice when I get on aircraft I see how much information the pilot has; nor did you comment on the need for instruction for the driver as to what to do in the case of injury.

Dr. GIKAS. Operating a car is a very complex problem. Perhaps it is even more complex than flying a jet once it is off the ground, considering all of the changes in the local traffic environment, and the need for the operator to be fully aware of the capabilities of his machine.

This information should be given to him by the manufacturer but the manufacturer has a problem here. How many people read the



manuals? I admit the manuals lack information. They don't tell you to lock the door from the inside.

But how do you get the person to read the manual? The public has tremendous apathy as well as the manufacturer. The manufacturer is not entirely to blame. The public shares the blame.

Mr. MACKAY. Here are the 28 questions I should like to have you answer.

Mr. MACDONALD. I would like to thank all of you gentlemen on your testimony. I think you have brought a different viewpoint to these hearings than we have heard from anyone else before and it has been very edifying and instructional.

I have just a couple of questions. First of all I would like to make it clear that my sympathies are along with the evidence you produce. But I do have a couple of questions.

One of them goes to what you have just been discussing with Mr. Mackay concerning making this type of FAA investigation in the courts and that sort of thing. It would just seem to me—and I would like your comment about it—that the sheer volume—that because of the sheer volume the FAA deals with—I don't know how many accidents a year—but I would think substantially less than any agency that would be set up to investigate fatalities on the highway.

It would seem to me it would be just about the nature of the way Government operates it would be almost impossible to have a motor vehicle prototype of the FAA. I would like to have your comments on that.

Dr. GIKAS. Yes, sir, this is a very good question. I agree with you it would be physically impossible if not undesirable for a Federal team to go to the scene of every fatal accident; there are just so many of them.

What I meant by Federal support to local communities for more complete investigations is this: I think a Federal agency, the transportation agency or some other agency could set up a program of education, could teach skills of crash investigation to members of local communities.

Now the police departments in the communities usually are the ones that get called to the accidents. Members of the police department could be selected to come to a school where they could learn sophisticated accident investigation techniques.

Perhaps they could add to their local police force team a mechanic, maybe an automotive engineer for an area. Obviously a town of 5,000 could not support this but a larger area could support it. This team could come here to some agency or maybe they could go to a university with such a teaching program and this trip could be sponsored by Federal funds.

Mr. MACDONALD. In other words, it would be an educational effort.

Dr. GIKAS. Supporting the local community so they can send men to these schools to be trained in accident investigation. The local teams investigate the accidents and then send the information back to the central office.

Mr. MACDONALD. You are familiar with H.R. 13228. The last part deals with making information that the agency would find from these fatalities available to the Secretary of Transportation or to other Fed-

eral departments or agencies, State or local government, et cetera, but there is a proviso that these findings should not be made available to the public.

I take it that you disagree with that section, 307, which is on page 28. Am I correct?

Dr. GIKAS. Yes, I am familiar in detail with the Senate bill 3005 and at the Senate Commerce Committee where I testified the Senators were concerned about this also. I got the impression that they felt this should be public information. I feel it should be also.

Mr. MACDONALD. If it is public information and you do have this agency, wouldn't these agencies spend nine-tenths of their time in court testifying on one side or another about what caused the accident as there usually is insurance involved and that sort of thing.

Wouldn't it be self-defeating to have them engage in that sort of activity?

Dr. GIKAS. If they would spend that much of their time in court, obviously it would defeat the purpose. I can only speak from personal experience. In our study conducted by Dr. Donald Huelke and me, we have investigated 177 deaths in our area.

I am chief of the laboratory at the VA hospital, and a faculty member at Michigan. He is a full-time faculty member there. We are still able to carry on our other duties and do this. We have been called to court, yes, but we have not been spending nine-tenths or even one-tenth of our time in court.

I could not do both. I realize if this happens something would have to give, but I don't think it would come to that. We spend some time in court but not that much.

Mr. MACDONALD. How long have you been in this?

Dr. GIKAS. We started this study as a pilot study with university funds in 1961 and then we applied for the Federal money to start in July of 1962.

We were granted the money in July of 1962 and it terminated in October of 1965.

Mr. MACDONALD. I will preface my remark to say I am prejudiced in asking this question but it always has been my impression that most fatalities are due to excess speed. I asked the question of some other men who did not agree with me so I ask the question of you.

Do you agree with this?

Dr. GIKAS. I will say any speed can kill. Certainly a high-speed accident in which your car goes off the roadway and strikes an immovable object enhances the chance you will be killed but low-speed collisions kill, too.

As a matter of fact, 50 percent of the fatalities occur at speeds of less than 50 miles an hour. Seventy-five percent of the fatalities occur within 25 miles of home. If you are thrown out of a car at 20 miles an hour and your head hits a pavement, it can kill you, and the same is true at 75.

Mr. MACDONALD. The faster you go isn't the higher the incident rate of accidents?

Dr. GIKAS. Mr. Chairman, the figure I recall is that the highway fatality rate per 100 million passenger miles is lower on our inter-



state limited access highways where the speeds are higher; it is lower than in overall driving.

If you have an accident at high speed you increase the chances of being killed, but any speed can kill.

Mr. MACDONALD. I don't know if you followed the industry's testimony on our side. They testified one way and then another way. I know you are an expert in this field. I was going to ask you if you had ever used or heard of or gone through this Commission that the industry now recommends that standards be established called something like Vehicle Safety Commission.

It passed the House, I believe, introduced by Mr. Beamer of Indiana who used to be a member of this committee. He introduced a bill saying States could enter into a compact and it is my understanding some 40 or 44 have entered into a compact which is very vague, but they are supposedly set up for standards of safety.

Would you care to comment on the present function or the past function of the Vehicle Equipment Safety Commission?

Dr. GIKAS. This compact in which some of the States participate—

Mr. MACDONALD. We are not talking about the compact, at least my question is not directed to that. I am talking about the Commission that would be established. A compact is something that exists between one State and another State and under our Federal regulations you have to have permission of the Federal Government to enter into a compact between States. That permission was given. But I am not asking about whether there was a compact. I know there was a compact. I am asking, Have they ever done anything?

Dr. GIKAS. In my opinion they have not done anything from the crash attenuating standpoint. I think they have been completely impotent in this area, and witness the product we have on our highways.

Mr. MACDONALD. Thank you, gentlemen, very much.

Is Mr. Hall in the room?

So the other witnesses who are waiting won't think you are being favored, I will point out, having given your testimony, you have been waiting for questions for a day or so. I know you have come quite a long distance so whatever questions the committee may have of you, I am sure you are in good hands with Mr. Mackay.

**STATEMENT OF JAMES W. HALL, JR., COORDINATOR FOR INDEPENDENT GARAGE OWNERS OF GEORGIA, INC., ATLANTA, GA.; ACCOMPANIED BY GEORGE BYRD—Resumed**

Mr. HALL. Thank you, Mr. Chairman. I would like to ask Mr. George Byrd to accompany me. He is the other man I mentioned this morning. We gave our testimony this morning. I imagine there may be some questions that members of the committee may have.

Mr. MACKAY. I would like to make a statement, Mr. Chairman, since Mr. Rogers is here. As I stated this morning, these two gentlemen represent the independent garage owners of Georgia. They have been interested in the quality of service given to automobiles after a

fellow buys a car. They have driven up here at their own expense to participate in these hearings and support our efforts in Congress and Mr. Hall here, in particular, has some information about the problem from the time that you get the new car.

Now, Mr. Hall, if you could give a specific illustration that you have in mind, and then I wish you would address yourself to this: What is the problem of vehicle safety standards after the purchaser gets a new car? And then I think maybe Mr. Rogers will want to ask you some questions.

Mr. HALL. Yes, sir. The illustration I have here is a brakedrum that came from a compact 1964 automobile. The car had 12,393 miles on it. Approximately 6 weeks ago the owner of the automobile, who is not only a good customer but a good friend, and her infant daughter were riding in this car. As she applied the brakes in a normal manner, she heard a loud popping noise and the car ran through a stop sign. The street she was riding on dead-ended into a major traffic artery. Two vehicles miraculously missed her. When she regained her composure she called us and I went out and got the car because she was very distressed. When we got it into our place of business, we removed the wheels; what we found was that the brakedrum on the right rear wheel had completely separated.

The backing plate, which I have in my right hand, separated from the drum. The drum itself had split and the lining had been sheared from the shoes. This was on a car that in a little over 2½ years had only been driven around town.

On examination, I would welcome any engineer or anyone else who would like to examine this. You can see where the weld never fused the backing plate to the drum. It would not have taken very good quality control to have detected this.

Secondly, it is a very poor design by anyone's standards because you have absolutely no margin for error with this type of design.

For example, you see, the drum could have been cast around the backing plate, there are drums available of this type design. Frankly, they are not made in this country but are used on American cars. You get a good structural design with this. With this type design you could not have complete failure.

True, this is only one incident but in the event that mother and child had been killed, two-thirds of their private society would have been wiped out.

This to me is one of the most blatant examples of callousness of what they are foistering upon the public.

Daily we see an item called the ball joint; this deals with the alignment and steering of the automobile. It is designed so it will give a soft ride and easy steering. Mr. George Byrd here sits on a council of a manufacturer which is the world's largest manufacturer of this type of equipment for the independent market. I would like for George, if we may, Mr. McKay, if this is permissible, just to mention one or two things about the ball joints coming on brandnew automobiles.

Mr. BYRD. I have in my hand here what we call the load joint on the front of an automobile. We have two joints on either side which is the load joint. The load joint is the joint that carries the load on



the front of your car. It could be either the top or the bottom. For some reason after 30 years of teaching the public to grease automobiles they have come out with the idea that they only need greasing every 30,000 miles. This is a good example that I have in my hand. I would like to leave the evidence for you if you would like to have it. This is due to lack of lubrication in automobiles. We take the plugs out of a customer's car and service him every 6,000 miles as far as grease is concerned.

On the other hand, in the construction of the ball joint, and I hold in my hand a new joint, bought out of the bin at the parts house of one very popular car. Within this joint there is approximately fifty to sixty one-thousandths play.

As the gentlemen testified, the impact of force that you develop from the plate within this joint as it is manufactured in the beginning is a source of the trouble of quite a few accidents.

Now whether this joint comes down or does not fall down, I have records here of many cars that have blown tires and it was caused directly from this malfunction or looseness of this ball joint. This is what caused it in the beginning. It was not the fact that this joint would fall down but the fact that the play in there would change the cam angle of the wheel as much as a half to three-quarters of a degree minus which will blow that tire.

The industry, in building these, has conformed to the design of automation. That is why this is. It is a simple way to do it. It is simply stamped out of flat metal, it is pressed and it is the easy way to do it. I doubt if a man's hand ever touched it. When we first originated ball joints they were made upon a forging which took more money to do it yet in steel we did not have these cars falling down by the wayside and causing accidents.

I have a record of three deputy sheriffs that were killed in my home county because of a blowout. This was a malfunction of the steering mechanism somewhere because the tire wear was where it wore through a four-ply tire and blew the tire out.

In building an automobile, I realize there is a certain amount of economy that must be looked into it. I assume that the man that bought this component from whatever manufacturer he bought it, bought it on a price structure, yet and still, gentlemen, this thing you are investigating and this thing you are attempting up here must be done because we want to save lives and it can't be done on a money basis. Too much money is lost in the lives of people. People's lives are worth something. The life of a person, as I believe our Savior said, was worth the whole world because if you lose your soul what have you got?

Gentlemen, when we come to the point where we lose our loved ones that is something that cannot be replaced.

I have a clipping from a paper where a man received a \$350,000 verdict for his wife and son killed in an accident. Regardless of the amount of money, you can't replace the wife and son.

I have other items here and I enjoyed Mr. Hoffa's testimony on the trucks because he gave wonderful testimony. Here is a ball joint from a very popular truck. I know for certain that this truck ran 100 miles a day with 20 tons on it for 4 weeks before that came into

my shop to be repaired. That could have killed any number of people; not just one but any number of people. It is badly designed. If it had been properly designed we never would have had it. I have items here of one particular accident that happened in Pennsylvania that killed two people. This truck was put on the road 2 days before by the Interstate Commerce, it had a safety sticker on it and the first trip with 12 tons of flat steel on it killed two people. It did a lot of damage.

As Mr. Hoffa stated—and this was the identical thing that happened to this truck. I have the record here.

Gentlemen, there are thousands of trucks on the road today that are running with this same problem. We examine all these things. This is what happened.

This is the separation of the drag link from the dropoff. I am trying to impress you with this particular testimony because all of the testimony we have heard here before has been about the structure of the new car.

Well, you know that most of your accidents happen—a majority of your accidents happen within 25 miles of your home. I just serviced a truck and rebuilt it just a few weeks ago that killed a man in front of his home. It ran over him and killed him. He was coming out of his driveway and it happened right at his home.

There are engineer designs that can do away with these problems and can help these problems.

In serving on the advisory board of this particular company, and I am not advertising for them, but we came up with something that I was a part of. This particular ball joint that the customer buys we can put on the new car and guarantee it as long as the man has the automobile. If there is any malfunction of the joint or if anything on it wears out, we replace it free of charge.

This joint has the property to retain the alinement. The alinement is the necessary thing on the front wheel to keep that car from blowing a tire.

In the last 2 or 3 years, from clippings I have here with me in this notebook, we have had a tremendous amount of blowouts not only on old cars, but on new cars, on the tire structures. We have had problems with the tire structures and I am glad to see that Washington is doing something about the tire building, because it is needed.

Two-ply tires are not strong enough to carry the load and they are not good enough, as the gentlemen testified, to recap, so I think that the recappers are in some trouble as far as recapping is concerned. I would not let a man put a recap on two-ply and I would not let one of my customers use it.

I have been in this business 36 years solely in the wheel alinement and brake business. I think I have seen enough to know that the structure of the automobile can be corrected in many ways and should be corrected. I think in making up this advisory board of this commission or whatever it will be, I think you should have some engineers or someone on there who are not concerned with the automobile manufacturers.

I think they should be private concerns that do not have an ax to grind and engineers who know what they are talking about in designing and building these ball joints.



Mr. ROGERS of Florida. Thank you. I appreciate the information you have given the committee. I agree we do need a commission to advise the Secretary on standards where we can get some independent thought and expertise.

What is your feeling about our doing something concerning used cars? It seems to me that with 90 million on the road, and with this legislation affecting only about 9 million a year, we haven't even gotten to the problem unless we do something about used cars.

What would be your opinion?

Mr. HALL. First, you have to find a method by which you can solve this problem. It is very definitely a serious problem. As a matter of fact, when the Georgia inspectional was being renegotiated, we will say the first part of last year, the most vigorous attack on the inspection law was being made by the used car industry.

Now, here is one thing that can and should be done with all automobiles. I have a little bit of experience in the aviation field. I have had 8 years' experience as a Reserve and active duty statistical services officer, and I have handled Air Force statistical data reporting which deals with the history of the airframe and that type of thing. It is not difficult to carry a logbook in the glove compartment of an automobile, and certainly your independent repair industry would be very agreeable to entering any type of repair or service in this logbook. Make this a part of the vehicle.

I do not know whether you would have to pass this under the local code or what, but anyone buying that automobile should have an idea of what happened to that automobile in the past. This is one approach to it.

Another is the certification to certain standards which we do have in the State of Georgia. Every car dealer must affix a current inspection sticker to any automobile that they sell, whether it be new or used. This is a good approach, but when you take this approach and have an inspection law, that means something.

Our law in Georgia—all you need do is have a shingle out, have \$50 to buy a bond an insurance company and a book of tickets and a pencil.

Mr. ROGERS of Florida. What I was thinking about and will probably present in an amendment to the bill is a requirement for a certificate of safety being placed on the car, saying it does meet standards of the Secretary or Commission before the car can be sold.

Mr. HALL. This is a very good approach.

Mr. MACKAY. The Chairman says he has two more witnesses and I think we ought to yield at this point.

Mr. BYRD. Mr. Rogers, according to statistics approximately 40 percent of the cars manufactured in the United States are still running on the roads, 14,000 of the 1963 deaths were attributed to speed. I say that for Mr. Madonald's benefit—14,000 attributed to high speed.

Extensive speed continues to be the Nation's No. 1 killer on the highway. This statement, I believe, came from the National Safety Council.

Mr. MACDONALD. That was certainly always my impression. Perhaps I am brainwashed. In Massachusetts they have signs along the highway saying "speed kills." Maybe I got brainwashed, but I am glad you brought this to my attention.

At this point in the record, the statement of Mr. John B. DeRemer will be introduced.

(Mr. DeRemer's statement follows:)

STATEMENT OF JOHN B. DEREMER, NORTH CANTON, OHIO

I am John B. DeRemer, of North Canton, Ohio, an inventor, and a stockholder in and spokesman for Safeties & Automatic Safeties, Inc., an Ohio corporation, and I appear in these capacities. I wish to thank your committee for the opportunity of appearing before you today. We wholeheartedly support any reasonable legislation which will reduce the carnage upon the highways of our nation. We specifically endorse H.R. 12548, 89th Congress, 2d Session, as introduced by Mr. Mackay, calling for the creation of a National Traffic Safety Agency.

There appears to be no dispute that the three areas of concern in traffic safety are the automobile, the operator and the roadway. Our group unanimously believes that of the three areas, the most significant long-range improvement in safety can and must be made in the improvement of the attitudes and safety consciousness of the driver. However, significant improvement will require a most comprehensive study of the causes and symptoms of driver failure, inadvertence and disinterest, and the institution of extensive driver education programs to eliminate the causes of such driver deficiencies. Although beginning steps presently are being taken and presumably will be increased as urged by the President, we believe it is fair to state that many years will elapse before our nation is able to witness dramatic results from such a program of driver education.

Similarly, the improvement of our highways, as you gentlemen certainly are aware, is, by its very nature, a time-consuming process. Our interstate system of highways has been a dramatic step forward in our attempt to provide adequate highway engineering for today's automobiles. We must, however, realize that any accelerated program of highway development, even if instituted this very day, would require years before dramatic reductions would be realized in the gruesome traffic toll.

Accordingly, we believe the conclusion must be drawn that, while pursuing the desirable means of increased driver education, and improved highways, our nation can look for a dramatic reduction in highway deaths *in the immediate future only* by the making of changes in the automobile which is being produced today, tomorrow, next month and next year.

The principal thrust of such improvements in automobile safety are, we believe, two in nature. The first is the improvement of the inherent safety of the automobile itself. The second is an end which we believe is often overlooked, the furnishing of various mechanical methods to assist the operator in overcoming the element of human failure which befalls all of us at one time or another when we drive.

With the latter factor in mind, we specifically endorse the establishment of a National Traffic Safety Center, as proposed in the legislation introduced by Mr. Mackay. Such a Center, as we understand it, would, among other things, provide a clearing house for review and evaluation of ideas, inventions and suggestions which undoubtedly would be submitted by numerous interested and intelligent safety-minded citizens.

That such an independent clearing house is required, we believe, is demonstrated by the enigma which our corporation faces. Among the products which we have patented and perfected is an automatic safety brake. This brake, in addition to serving the functions of the dual braking system which has been adopted by the General Services Administration as a requirement for 1967 automobiles, would automatically bring an automobile to a safe, straight-line stop in the event of an inattentiveness or incapacity of the driver resulting from drowsiness, sleeping, fainting, heart attack, or other circumstance. Our product works. In addition, it can be installed during the course of manufacture, at approximately the same cost as the cost of power brakes, a widely demanded automotive option. In view of the fact that safety authorities generally attribute over one-half of the fatal accidents on the interstate system to sleepiness, or to inattentiveness caused by highway hypnosis, one would assume, as did we, that such a device immediately would be adopted by automobile manufacturers.

However, for various reasons, the manufacturers have not seen fit to make an in-depth inquiry into the merits of this system.



The evaluation of our product by such an independent agency as envisioned by the Mackay bill might well result in such a report that would encourage the automobile manufacturers to review their previous decisions with respect to our product. Or, conversely, furnish us with information which would enable us to change our product in such a manner that the automobile manufacturers would desire to use it.

We are certain that there are numerous other ideas, products and suggestions offered by safety-conscious citizens which similarly would enure to the benefit of the general public under the auspices of such a Traffic Safety Center.

In summation, we wish to inform the Committee that we endorse the various proposed legislative enactments which call for the production of safer automobiles, the education of drivers, and the incorporation of additional safety features into our highway systems. We do, however, believe that, while pursuing all three of these programs, our nation will realize the most spectacular safety achievements in the reasonably foreseeable future by addressing itself to the immediate inclusion of devices on automobiles which not only improve the inherent safety of the automobile, but which assist the operator in overcoming his driving faults. As we have expressed, we believe that the latter achievement can be more readily and completely obtained when there is created an independent agency which will consider and evaluate the ideas and products of all those who are alarmed and outraged by the death and injury upon our highways.

Mr. MACDONALD. Is Mr. Norman Bennett, assistant automotive engineer, United States Merchandise Mart, here?

#### STATEMENT OF NORMAN BENNETT, MEMBER, SOCIETY OF AUTOMOTIVE ENGINEERS

Mr. BENNETT. Mr. Chairman and members of the committee, I know that time is getting late here.

Before I begin, I would like to say the doctor who testified a little while ago to you very graphically and displayed the pictures of the accidents and the results thereof was questioned for the automotive industry by Mr. Bugas of Detroit as to "where were you 10 years ago," and I can assure him that there was a lot of noise made 10 years ago, but it didn't do any good. The manufacturers were aware of those conditions at that time.

I will read my testimony now.

It has been 10 years since the automotive industry officials appeared before the Roberts Subcommittee on Traffic Safety for the U.S. House of Representatives and offered arguments and protestations similar in nature as have been heard repeatedly during recent hearings in Washington.

I appeared before the aforementioned subcommittee and offered information which should have been well known at the time to the industry. I made clear at the beginning of that testimony that "it is intended to show reasons for Government supervision of automotive safety structures and devices, because of the obvious neglect, delay, and restraint of the automotive manufacturers in utilizing safety features strongly recommended by independent testing activities."

This was 10 years ago.

The industry admits it is in trouble; and it does need help of a fair, sensible and qualified, yet uncompromising, governing body which will not be misled by devious excuses and inevitable pressures. I do want to say that the auto industry is extremely adept at explain-

ing away its shortcomings in its obligations to public safety, by skillful use of statistics and misleading representations.

I wish to present this serious national issue to the committee from a different perspective than that of the unrelenting legal, literary, and professional safety sources who have unleashed a barrage of probably justifiable charges at the industry in recent months.

From the combined viewpoint of an automotive safety engineer, a mechanical test engineer, and a practical businessman, who is well aware of the unceasing challenge of appealing to the American buying public, the present situation is not entirely inexcusable.

The industry has expressed remorse, regrets, and indignation regarding the present situation. Yet, they broke their covenant with Congress approximately 10 years ago when they agreed to deemphasize horsepower and speed as feature items in their automobiles. Their reason for this was economically justified. One manufacturer cannot sacrifice the sales advantage of merchandising the features of high-speed and frantic performance to his competitors.

As I said 10 years ago, a common denominator of required safety features must be established and continuously kept up to date in fairness to the safety-minded manufacturer. These requirements should not be issued by any governmental department, or otherwise, until all practical and economic factors are knowingly appraised.

It is unfair to the mass market to make any safety features optional. The people who can least afford them may well be those who are most deserving. Congress should assure that the law abiding and careful driver is given maximum protection on the Nation's highways and streets from the tragic consequences produced by the reckless, incompetent, and foolhardy drivers who create hazardous conditions and devastating accidents. Regarding this point, the constant efforts of the industry to make the so-called nut behind the wheel the answer to all their problems is exemplified in the current issues (April 1966) of *Nation's Business*, the official publication of the U.S. Chamber of Commerce, and *Printers' Ink*, the trade magazine of the advertising business.

All of the dramatic examples of dangerous drivers are meant to divert attention from the real issue. If anything, the U.S. Chamber of Commerce has presented an excellent case for the need of auto safety features. The fact that many incompetent drivers do exist stresses the need for utmost protection for the great mass of the public who do drive with consideration of their fellow man.

Let us take, for example, just one important safety factor well known to the industry 10 years ago—the dramatic effect of controlled crumple-action of the forward chassis structure of the auto body in front-end collisions. Numerous dynamic tests by many independent agencies, and the manufacturers, had shown that with adequate front-end protection the forces of impact could be reduced more than 50 percent. But not only has little, if any, progress been made, but in most cases the industry has gone backward.

Ford Motor Co. representatives have claimed, as little as 3 years ago, that one of the strongest and formidable bumper structures they ever produced was not meant to afford protection to the auto chassis and occupants and broke up at impacts of as little as 2 miles per hour.



Deficiencies in production models of automobiles do not always show up in the test lab or proving ground. The same holds true in our Armed Forces, where items of armament for use in combat must be modified, and defects corrected, after they have already been put into operational use.

The industry should welcome Government assistance in detecting any deficiencies; this should save them considerable sums of money by decreasing the number of autos it finds necessary to recall in order to correct defects.

I will not presume to recommend to this committee what exact steps should be taken, nor do I wish to enumerate many design hazards which have existed so long that they are accepted as necessary evils by the public.

I do want to thank the committee for this opportunity to be service to you.

Mr. MACDONALD. Thank you very much.

Mr. YOUNGER. I thought you made a statement that the Government ought to be responsible for protecting these people. I am wondering whether you mean financially responsible or just through the safety.

Mr. BENNETT. I meant the great mass of the public can be considered to be safe and responsible drivers and as such they are entitled to as much automotive safety structure around them to protect them from the certain percentage of the so-called nuts behind the wheel that so much is being made of.

Mr. YOUNGER. It was not a matter of finances.

Mr. BENNETT. No; the automotive structure devices that they are entitled to.

Mr. MACDONALD. I have one question: I am glad to see you agree with me about the high-speed accidents but I would also like to call your attention to the statements made by the Ford Motor Co. and their bumper structures that broke up at impact at as little as 2 miles an hour. As a layman that seems fantastic to me.

Mr. BENNETT. Yes, sir. Little has been said about this aspect today even though one of the committee did remark there was not much said about the outside automotive structure, but little has been said about the importance of this protection. Your front end of your car is your first line of defense if you have an accident, in most cases. The bumper is the first point of impact.

Unfortunately, as I remarked in my testimony, the bumper structures have been going backward. They are not as strong now as they were about 14 years ago or 13 years ago when the steel was heavier, the configuration of the bumper structure was heavier. They seem to be more ornamental now and they are very easily bent out of shape, which means they will not absorb much of the impact of a crash.

Once your bumper has contacted a tree or telephone pole, or whatever you happen to be hitting in this accident, that is just beginning, because then you have the process of progressive crumple action as the automobile absorbs this energy of impact and causes a tremendous amount of deceleration to the man sitting in the driver's seat so he is not subject to 100 gravity but may be only 15 gravity force with the added protection of a safety belt and whatever inside structure you

have that might do this some good; but if you don't build the front end of your car properly—just covering this one particular point—if you don't build the front end of your car to give effective protection, you just create a hazardous situation and you are not giving the people the protection they are entitled to.

I would like to mention to you, since you mentioned the speed business—that is one of the things that statistics can be used to twist one way or another as to what the effect of high speed is on accidents, because the people who compile statistics will take into consideration all of the high-speed travel on the turnpikes and on the beltways, and compared to the regular road traffic that is pretty safe driving because you have a lot of cars driving at high speeds with safe conditions. In one-lane conditions you may have cars driving at 40 or 50 miles per hour traveling under much more hazardous conditions, going around curves, passing cars and so on, on smaller roads; so the statistics themselves don't mean anything until you look behind them to see upon what they were based.

Mr. MACDONALD. Thank you very much.

Mr. Melvin L. Bergheim.

**STATEMENT OF MELVIN L. BERGHEIM; ACCOMPANIED BY DAVID COHEN, ADA LEGISLATIVE REPRESENTATIVE, IN BEHALF OF AMERICANS FOR DEMOCRATIC ACTION**

Mr. BERGHEIM. Mr. Chairman and members of the committee:

My name is Melvin L. Bergheim. I am speaking for Americans for Democratic Action on whose national board and executive committee I serve. I know the hour is late and we shall not tax your patience or endurance.

Last weekend the ADA held its annual convention in Washington. More than 400 delegates were here representing members from every major population center in the Nation—from New England to southern California—from the State of Washington to Florida. They unanimously adopted two resolutions on traffic safety. These resolutions express the view that the Federal Government must be a strong and active participant in setting standards and ground rules for vehicle design. I am submitting copies of these resolutions for your record.

With your permission, I would like to dwell briefly on some general principles that underlie our belief that the Federal Government must involve itself in an assertive and meaningful way in this critical matter of highway safety. Then I shall discuss H.R. 13228 in specific detail.

In the first place, ADA believes that consumers—that is, people who are also voters and taxpayers—have a right to expect that their Government will protect them from harm. Government protects its citizens from aggression, for which we organize armies; and from crime, for which we hire police forces; and from disease, for which we have created a Public Health Service. There is nothing fundamentally different philosophically about asking the Government to help protect us from slaughter on the highways, which to some extent is caused by aggressive acts and criminal irresponsibility and has certain characteristics of pandemic disease.



Secondly, the general reaction of the automobile manufacturing industry—namely, that the imposition of standards by the Government will adversely affect the industry's highly competitive economic circumstances—really argues more for the Government playing an even-handed role in the entire industry than in remaining aloof from it. In other words, if the Government sets standards and ground rules, all manufacturers start even and none is handicapped. Left to its own self-generated and self-serving methods of setting standards, neither the industry nor the public it serves has any assurance that all manufacturers will comply. Once even one company yields to the temptation to cut corners on safety for competitive reasons, we are as safe as we would be with only one hole in a tire.

Third, I think this committee could make a great contribution to highway safety if it reported out a bill that took account of the fact that auto "accidents" are seldom accidental. With rare exceptions they aren't accidents at all. They are certainties.

Their random nature gives us the illusion that they are accidental. Chance plays an overwhelming role in determining who the involved drivers and victims will be. But statistically, we are dealing with certain damage, certain injury, and certain death.

Put another way, if an auto is defective, or a road is badly designed, or a driver is inadequately trained, sooner or later that auto will be in a smashup, sooner or later that road will cause a crash, sooner or later that driver will be involved in a wreck.

The role of the Government here, it seems to us, should be to do everything possible in research, development, standard setting, and informing the public to cut to the irreducible minimum the number of events that we call, all too fatalistically, "accidents."

If you interpret this to mean that we are not satisfied with a bill that focuses alone on the design of the auto, crucial as that is, then you are correct. We must pay much more attention to all the other elements in this picture—and we must be a good deal more imaginative about it than we have been in the past.

Safety slogans are fine as far as they go. Doubtless they have saved many lives. We don't know how many. But we do know that slogans did not save lives of the 49,000 persons who died last year on our highways.

We must come to terms with the fact that the driver and the pedestrian, who have been the objects of most safety efforts, are to be pitied more and scorned less if we are to make any progress. The auto has a greater capacity for destruction than the human driver has for restraining it. True, drivers often are to blame for accidents. True, also, that drivers often are not to blame. No safety program is valid without taking both truths into account.

Now, a few specific comments on H.R. 13228 and on the auto industry's reaction to it. We think this bill is heading in the right direction, but it needs to be broadened in keeping with the thoughts I have just expressed.

And it needs to be strengthened in terms of the Government's relations with the auto industry. If there is anything it does not need, however, it is to have its thrust tied down by consultation with State governments in any formal way that would delay this vital process of standard setting, which if anything must be speeded up.

In our judgment, the auto industry's recognition that it is proper for the Government to set standards represents progress. But to give the State governments a formal role that would tend to slow down or emasculate the Federal Government's capacity for setting standards would be a cynical show of contempt for the public interest.

The spokesman for the auto industry before this committee made statements like this:

Ill-considered or mistaken regulation, even if later rescinded, could add unnecessary cost or slow the process of development which leads to safer cars as well as to lower cost and greater efficiency. A serious regulatory mistake could affect the jobs and incomes of the many persons who are dependent on automobile production and sales.

At the same time he called for enlisting the State governments in a partnership with the Federal Government and the industry in setting standards. Surely he can't want the States to go their 50 separate ways setting standards. And just as surely the public cannot wait until all 50 States concur in the standards that are to be set.

We trust the Government will draw on the expertise of all the interested parties—representing the auto industry, the State governments, the scientific community, the medical profession, organized consumer groups, and other informed citizens.

But to attempt to get ratification from any or all of these sectors before taking duly considered action would be foolish and irresponsible.

Among our specific reservations about H.R. 13228 is one that it lacks an explicit provision requiring the Federal Government to stimulate the design, construction, and testing of prototype safe cars that are economical and suitable for mass production.

Moreover, we also urge that the bill lay the basis for continual upgrading of vehicle safety standards.

In title I, we recommend adding to section 106(a) specific reference to training State and local police in accident investigation.

Careless, untutored, or superficial accident investigation has deprived us of much worthwhile data on the actual causes of accidents and has resulted too often in assignment of blame to the wrong factors.

Also in title I, we take very strong exception to section 107(b)(4), which would exclude motor vehicles or equipment intended for export from the application of Federal motor vehicle safety standards.

If this provision is included because of some notion that items for export are not in interstate commerce, then we submit that even the most cursory examination of the auto industry reveals that its production and assembly plants are multistate and hence inherently interstate.

To include the offending section in the bill is to announce to our friends overseas that we believe that auto safety is for Americans only.

As our resolution on auto safety adopted last weekend says, we urge the further strengthening of this bill by:

1. Requiring the establishment by the appropriate Federal agency of mandatory safety standards for automobiles and other motor vehicles within a year after passage, to take effect a year later.

Enforcement provisions should include both civil and criminal penalties—as now exist for drivers. Automobiles are the only trans-



portation vehicles, except for motorcycles, which do not have to meet Federal safety standards. Aircraft, ships, and trains are required to meet such standards.

2. Providing—and this is most important—for a much larger research and development effort in highway safety by the Federal Government—both directly and under Federal sponsoring at universities and by other groups. H.R. 13228 proposes an expenditure for the next fiscal year on research and development of \$10 million. This is about 11 cents per motor vehicle, as compared with the direct cost of accidents and injuries that comes to about \$100 per motor vehicle. The sum of \$10 million and the small increases requested for the subsequent 4 years, ending with a request for \$40 million for fiscal year ending June 1972, are an entirely unacceptable basis for furthering the public safety. We spend 1 out of every 5 retail dollars on automotive transportation—\$100 billion a year. The traumatic and polluting impacts of this form of transportation require far greater public funds to counteract the harmful fallout of motor vehicle travel.

3. Providing for a system whereby vehicle defects are promptly and effectively communicated to car owners by the manufacturers and whereby full disclosure of the safety capabilities of automobiles—both in their operational and crashworthy features—is made to the appropriate Government agency and to consumers so that that agency can better meet its statutory responsibilities and the consumers can make a more intelligent choice and develop a greater awareness of safety in the marketplace. Explicit safeguards to prevent secrecy and non-disclosure of reports and studies made under Federal grants and contracts should be written into law, and section 307 of title III should be stricken.

Now, in conclusion, I would like to leave just a few more thoughts with you:

I won't recite all the statistics. By now you know them too well. But you and I can hardly overstate the need for urgency. We must infuse the administration, the public, and yes, the auto industry, with a sense of crisis. For, after all, this is a crisis of the magnitude of a war or an epidemic.

Now, finally, we do insist that the management of this crisis cannot be left to the auto industry. It has had its chance to cope with this enormous problem, and it has failed. Now the public interest must assert itself in the form of public regulation. To continue to leave the control of this terrible disease of highway slaughter in the hands of the auto industry, or to allow the industry to influence the course of treatment by diffusing the prescription among all the State governments, would be like putting "Typhoid Mary" in charge of the kitchen at a community hospital. She was the carrier of a dread disease. And so is the modern automobile.

Mr. MACDONALD. Thank you very much, Mr. Bergheim.

It is always nice to see the ADA interested in things which do not directly relate to politics and I for one appreciate your appearing here today.

At the request of the witness, with unanimous consent, the resolutions adopted by the Americans for Democratic Action on the subject may be included and made a part of the record.

(ADA resolution follows:)

AMERICANS FOR DEMOCRATIC ACTION, WASHINGTON, D.C.

(ADA Policy Position Adopted at 19th Annual Convention, Apr. 22-24, 1966)

#### AUTO SAFETY

The automobile is the leading man-made cause of death and injury in the country. At the present raging accident-injury rate, 50,000 Americans die and over 4 million will be injured on streets and highways this year. The highway epidemic is the fourth leading cause of death in this country and the first leading cause of death for the 5 to 30 year age group. One out of every two Americans will be killed or injured in traffic accidents, at present rates, and every indication points to an increase of these rates.

For too many years this country has approached the problem of highway safety with a frozen ideology that explains accidents and injuries almost exclusively as driver failure. This ideology, fostered and perpetuated by automotive and allied interests, is alien to the flowering and application of engineering remedies to render automobiles both more roadworthy and more crashworthy. Safety as an abstraction invites the support of all. But safety in automobile design means a reorientation of priorities, values and investments within the industry. The auto industry has rejected such change and has sought to preserve full control over the design of automobiles. The outcome of such a policy is the contemporary automobile—obsolete in terms of safety for over three decades. With technology available to build automobiles economically and attractively that will protect occupants from injury in collisions up to 50 mph, motorists must endure automobiles which can and have killed them in collisions as low as 5 mph. Thousands of pedestrians every year suffer aggravated injury by sharp fine, protrusions, and cutting edges of the automobile's external ornamentation.

In recent months, there has been a rapid awakening to the realities of the accident-injury phenomenon—an awakening quickened by studies made through Federal funding and by public hearings in New York, Iowa and by U.S. Senate Committees. The greatest single lesson learned for sound policy making from these studies and hearings is that attention must be given to the contributing factors to the accident or injury *that are most controllable in the quickest, cheapest and most effective manner*. Under such criteria, the automobile emerges as the focus for sharply cutting the death and injury toll through the construction of crash-worthy cars that make accidents safe or safer, and through improved designs in brakes, tires, handling and many other features that reduce the risk of driver failure and enable him to take better evasive maneuvers in emergencies. A crashworthy automobile up to the 50 mph collision level will prevent at least 75 percent of motorists' deaths and serious injuries that occur. For that is the proportion of the death and severe injury toll which results from accidents under 50 pmh.

President Johnson has sent to Congress, the first federal highway safety act in history. It was conceived in December and January, and as some high Administration officials now believe, was too restrained and lacked the urgency commensurate with President Johnson's February statement before the American Trial Lawyers Association, which called the highway toll the gravest problem before this nation—after Vietnam. A growing body of Senators and Congressmen believe that the bill—outlining the crucial pathways for Federal policy in highway safety for the first time—must be strengthened. At present, the bill is heavily discretionary and delayed its application.

Congress is urged to strengthen the Administration proposal to:

1. Require the establishment by the appropriate Federal agency of mandatory safety standards for automobiles and other motor vehicles within a year after passage, to take effect a year later. Enforcement provisions should include both civil and criminal penalties—as now exist for drivers. Automobiles are the only transportation vehicles, except for motorcycles, which do not have to meet Federal safety standards. Aircraft, ships and trains are required to meet such standards.
2. Provide for a much larger research and development effort in highway safety by the Federal government—both directly and under Federal sponsoring at universities and by other groups. The Administration's bill proposes an expenditure for the next fiscal year on research and development of \$10 million.



This is about 11¢ per motor vehicle, as compared with the direct cost of accidents and injuries that comes to about \$100 per motor vehicle. The sum of \$10 million and the small increases requested for the subsequent four years, ending with a request for \$40 million for fiscal year ending June 1972, are an entirely unacceptable basis for furthering the public safety. We spend one out of every five retail dollars on automotive transportation—\$100 billion a year. The traumatic and polluting impacts of this form of transportation require far greater public funds to counteract the harmful fallout of motor vehicle travel.

3. Provide for a system whereby vehicle defects are promptly and effectively communicated to car-owners by the manufacturers and whereby full disclosure of the safety capabilities of automobiles—both in their operational and crash-worthy feature—is made to the appropriate government agency and to consumers so that the former can better meet its statutory responsibilities and the latter can make a more intelligent choice and develop a greater awareness of safety in the marketplace. Explicit safeguards to prevent secrecy and non-disclosure of reports and studies made under Federal grants and contracts should be written into law.

The harmful effects of our technology and highly industrial society are becoming, apart from war, the chief threat to the security of our environment. Greater recognition must be given to reducing the social costs of private enterprise, both in its productive and marketing practices. Social controls to reduce these costs must be devised with a greater skill and courage than hitherto has been the case. Otherwise, the poisons, the traumas and the ugliness of our affluent society will overwhelm essential human rights and reduce us to a dimension of intolerable subjugation.

#### CONSUMER RIGHTS

The American people, rich and poor alike, are part-time consumers and thus are an unequal match for some unscrupulous elements in manufacturing, selling, and advertising who work full-time to produce and promote products that conceal what is dangerous and who labor overtime to deceive the purchaser about the real value of their products.

The phrase *caveat emptor* was coined by people who never heard of the rigid auto steering column, subliminal advertising, or debt consolidation firms. The evident failure of the manufacturers of tires, automobiles, tobacco products, proprietary drugs, pesticides and other environmental pollutants to police themselves now requires that the consumers insist that their government step in and set standards and ground rules for safety, health and plain old-fashioned honesty.

Surely the most pressing need is in the improvement of highway safety. A centrally coordinated program is required as quickly as possible to set safety standards for automobiles and automobile accessory manufacturing—standards that will be enforced and enforceable by relentless administrative and judicial procedures.

Congress must expand the proposed Traffic Safety Act of 1966 in such a way as to give the Federal government the authority to insist that presently available technological know-how be applied now to the design of crash-worthy vehicles; that states and localities have as much incentive to build safe highways as to build new highways; and that every sector of our society be infused with a sense of urgency to reduce as much and as quickly as possible the appalling toll of property damage, injury and death, which has become a national scandal: more than 8 billion dollars in income loss, property damage, and medical and insurance costs; nearly 4 million injuries, and 50,000 deaths a year.

Required ultimately is a new Federal Department of Consumer Affairs to give centrally coordinated direction to highway safety programs and all other forms of consumer protection.

In other areas of consumer protection, ADA urges that Congress promptly enact:

(1) A Truth-in-Packaging bill that will bar information in either advertising or in packaging that misleads or deceives the consumer about quantity or price.

(2) A Truth-in-Lending measure that will make it clear to consumers what credit costs them in terms of both money and interest rates.

(3) Legislation that will encourage reduction of prescription drug costs by ending patent monopolies after three years (rather than 17 years) and be subject thereafter to compulsory licensing on reasonable terms.

(4) A grant of authority to the Federal Trade Commission to enjoin dissemination of false advertising about smoking.

(5) Establishment of select committees on consumer affairs in the Senate and House.

(6) Appropriations of sufficient funds to hire an adequate number of Federal meat and poultry inspectors.

Moreover, Congress should not tolerate price-fixing agreements such as those embodied in proposed "fair-trade" or "quality-stabilization" legislation.

In addition, the Office of Economic Opportunity should assist and encourage local anti-poverty community action agencies to police and expose rent-gouging, price-gouging, and other forms of economic exploitation of the poor.

Mr. MACDONALD. At this time we will hear from the Honorable Frank Horton, who wishes to present the testimony of Dr. John States, president of the American Association for Automotive Medicine.

#### STATEMENT OF HON. FRANK HORTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

Mr. HORTON. Mr. Chairman, it is with pleasure that I present Dr. John States' testimony to this committee. As president of the American Association for Automotive Medicine, and as a renowned orthopedic surgeon on the faculty of the University of Rochester School of Medicine, Dr. States is among the most qualified physicians in the Nation to testify on the needs to prevent and method of preventing, or at least minimizing, what we know are the frequently disastrous effects of impact in an automobile.

In addition to writing several articles on safety devices for automobiles, including the roll-bar and shoulder strap, Dr. States has served as a consultant to the General Services Administration in the formulation of safety standards for federally purchased cars; he is a member of the advisory committee to the New York State Joint Legislative Committee on Motor Vehicles, Highway and Traffic Safety, and he has served as race physician at the Watkins Glen Grand Prix Race Course.

I have been closely aware of Dr. States' activities in the safety field, and my contact with him has been part of my motivation in sponsoring legislation to promote tire safety, on which I testified before this committee last month.

Mr. Chairman, I was particularly pleased to note yesterday the concurrence of the automobile industry in the need for Federal auto safety standards. I know that Dr. States joins me in praising the industry for taking this step, and in looking forward to fruitful cooperation between manufacturers and the Government in working to eliminate tragic highway slaughter. I am proud to claim Dr. States as a constituent, and I am confident that he will make a valuable contribution to the work of this committee.

(Dr. States' prepared statement follows:)

#### STATEMENT OF JOHN D. STATES, M.D., PRESIDENT, AMERICAN ASSOCIATION FOR AUTOMOTIVE MEDICINE

Physicians are in the unhappy position of having to treat the victims of automobile accidents. Most practicing physicians spend a significant part of the every day caring for thousands of patients injured in automobile accidents. Furthermore, we are intimately aware of the acute suffering which immediately follows the injuries produced by an accident and of the permanent disabilities and limitations which are the long term effects of many automobile accident injuries.



A small group of physicians organized themselves with the encouragement of Col. John Stapp in 1958. This group was the nucleus of what is now the American Association for Automotive Medicine. At present, there are approximately 200 physician members and 100 non-medical members. The non-medical members are engineers from the automobile industry, public health, safety and other personnel interested in automobile safety. AAAM is a scientific forum concerned primarily with the prevention or attenuation of automobile accident injuries. The organization meets once a year, often in conjunction with the Stapp Car Crash Conference. At these meetings scientific papers are presented covering the entire field of automotive safety.

Some of our members are employees of the major automobile manufacturers. AAAM has always attempted to work closely with the industry and has always had cordial close relationships with the industry members.

#### SAFETY APPROACHES

AAAM has been interested in and has examined many approaches to the prevention and attenuation of automobile accident injuries. Driver education, traffic laws and their enforcement, the effectiveness of safety campaigns, control of the drinking driver and medical limitation of driver licensing have all been subjects considered in the past. Many AAAM members are actively working in these areas of automobile safety research. Of particular interest is the American Medical Association's Committee on Traffic Accident Injuries headed by Dr. Abraham Mirkin. This committee has made a significant ongoing contribution in the development of medical standards for driver licensing.

A conclusion reached by AAM long ago is that cars can be designed to prevent some accidents and to reduce or prevent injury after accidents occur. The life saving value of safety devices and design features is very apparent to our membership. The efforts of the industry to introduce such changes in automobiles have been carefully reviewed. In response to the criticisms of a Detroit plastic surgeon in 1929, Chrysler Motor Company introduced a dashboard which was smooth on its outer surfaces and had recessed instruments and controls. This was used for three years but then dropped in 1937 and not actively reconsidered until very recently.

In 1949 Nash, now American Motors, introduced seat belts and a forward placed dashboard which permitted the occupant to jackknife over the belt without hitting his face or forehead on the dashboard. These seat belts were extra cost options and had very few purchasers. The dashboard design was dropped about 1951.

The most notorious effort was made by Ford Motor Company in 1955 when they introduced a safety package consisting of a deep dish, collapsible steering wheel, padded dashboard and sunvisors, seat belts and safety door latches. The extra cost options of this package received very limited acceptance and promotion based on safety was considered responsible by the industry for decreasing Ford sales in late 1955. Although the safety package has continued to be available, the promotional efforts were quietly dropped and was not used again until late 1965.

AAAM has carefully reviewed these efforts and concluded that a more forceful, permanent inducement is necessary before the industry will uniformly and consistently incorporate safety devices and design features into the manufacture of their cars. Public law 88-515 signed into law in 1964 by President Johnson, has opened the way for the establishment of practical, realistic and flexible safety standards. This law is a milestone in automobile safety. Technically, these standards will apply only to government purchased vehicles but in practice most of the standards are becoming guidelines for the automobile manufacturing industry.

#### STANDARDS DEVELOPMENT

AAAM has participated in the development and revision of standards since November 1964. Members of AAAM have participated as committee members both in work committees and in public hearings. Individual members are consultants for the General Services Administration for the development of Federal Standard 515.

The actual standards are first developed by the General Services Administration and then considered by a small working committee composed of engineers from the industry, concerned government officials and a few physicians, and repre-

sentatives from the universities and organizations conducting research in the field of automotive safety design. Practicality and cost are a constant consideration. At all times, the ability of the industry to meet a given standard is carefully considered before the standard is finally adopted. Of greatest consideration to the development committees is the certainty that a given standard will actually do the job intended and will not, in itself, result in injury.

#### REVIEW OF INDIVIDUAL STANDARDS

##### *Federal Standard 1. Restraint System Anchorages*

Although FS 515 requires only anchorages, the restraint systems themselves are covered by an earlier federal standards covering both lap belts and shoulder harnesses. The use of lap belts alone have obvious shortcomings. The rate of injury is only slightly lower when lap belts are used. However, the severity of injury is considerably reduced by the use of belts. One of their principal values is in the prevention of ejection. The fatality rate doubles when an occupant leaves the protective interior of an automobile.

The application and development of upper torso restraint systems is not simple. The possibility of injury production by a safety device has been a very serious consideration in the development of this standard. Many upper torso restraint configurations are available. The single diagonal upper torso restraint combined with a lap belt has been adopted as the most practical and safe means of restraint for production type vehicles. One consideration is injury to the lateral structures of the neck and shoulder girdle. An occupant may be thrown violently sideways in a rollover accident or side impact. The shoulder belt should cross the outboard shoulder so that the occupant's upper torso can slip from beneath the belt in response to these heavy lateral forces from the opposite sides so that undue pressure will not be exerted by the shoulder belt. Should the upper torso be thrown in the other direction, the shoulder and lateral chest will contact the outside of the car and absorb much of the force which might otherwise be transmitted to the side of the neck and to the vital underlying nerves and arteries by the shoulder belt.

In conclusion, occupant restraint is the single most important and effective means of reducing or preventing accident injury.

##### *Standard 2. Forward Compartment Energy Absorption*

##### *Standard 3. Recessed Instruments and Control Devices*

These standards are vital in preventing or attenuating injury when the head or body contacts the dashboard. The initial standards covered only the upper portion of the dash. High energy absorbing padding and moderate contour restrictions are imposed by this standard. The currently proposed revised standard also requires inclusion of the lower dashboard for knee protection. Injuries to the knees, thighs and hips occur with headon impact accidents in spite of the use of restraint systems. Research has shown that the body moves forward 6-9 inches in spite of restraint systems. Energy absorption by the lower dash is vital for the protection of the lower extremities. It is particularly important that controls, particularly the ignition key be recessed or removed from the area of possible contact. The revised standard also specifies the actual area which extends from the steering column to the right hand A-frame post and the furthest most forward structures of the door.

##### *Standard 4. Energy absorbing steering control system*

This standard requires a collapsible energy absorbing steering wheel and specifies the permissible amount of rearward displacement of the steering column with a standardized headon barrier impact. The steering wheel and column is the most common cause of serious injury. However, it is becoming apparent that the steering wheel has value as an upper torso restraint. The protection of the steering wheel for the driver almost certainly accounts for the increased severity of injuries received by the right front seat occupant who does not have the protection of the steering wheel and column.

##### *Standard 5. Safety door latches and hinges*

These are primarily of engineering concern but are of extreme importance in preventing ejection. The death rate is reduced by one half when occupants remain in the car. Safety door latches have been in use since 1956 and are being steadily improved.



*Standard 6. Seat anchorages*

This standard establishes performance requirements for seat anchorages. This is vital for the protection of front seat occupants. Seats break loose either by their own inertia or because of the seat and/or rear seat occupant imposed on the backs of the front seat occupants has resulted in additional injury which can be avoided by better seat anchorages.

*Standard 8. Safety glazing materials*

This standard codifies present manufacturing practices. The use of safety plate glass in the windshield and tempered glass in the side and back windows has proved to be a most satisfactory glazing practice both from a safety and cost standpoint. Tempered glass breaks into minute non-lacerative fragments on impact and its use in side windows prevents lacerations occurring with impact of the head or body on side windows. Ejection can occur through a tempered glass window is possible but most uncommon through a side window (0.1% of accidents).

The use of safety plate glass for the windshield is essential to prevent penetration by flying objects, not infrequently encountered on the highway. A heavier plastic laminate, developed by Corning Glass Company and Wayne State University, has been introduced universally with the 1966 models and is a major step forward. Partial penetration of the head is responsible for many of the severe disfiguring facial lacerations. The thicker plastic laminate prevents penetration at speeds below 24 mph in contrast to the older type plastic which permitted penetrations at speeds above 8 mph.

*Standard 13. Glare reduction surfaces*

This standard has been a standard practice in aeronautical engineering for many years and can be readily adopted to automotive manufacture. Occasional blinding reflections may cause loss of vehicle control resulting in an accident. This standard imposes no additional cost penalties and removes an occasional cause of accidents.

*Standard 14. Air pollution controls*

This standard imposes exhaust emission controls developed by the State of California. Air Pollution and smog control will become a major problem in many metropolitan areas. California now requires these devices which are of reasonable cost. However, major service problems are becoming apparent and it is obvious that regular inspection of exhaust control devices will be essential to successful air pollution control program.

## CURRENTLY PROPOSED STANDARDS (EFFECTIVE SEPTEMBER 1968)

## Standard 18. Window and Door Controls

## Standard 19. Ashtray and Lighter Safety Designs

## Standard 20. Arm Rests

## Standard 21. Padding for Automotive Seat Backs

These standards are impact protection designs to prevent injury on contact of the occupant. Contact with door controls, ashtrays and lighters and seatback are known sources of injury. Simple design changes as required by these standards will reduce or prevent most injuries. Costs of meeting these standards are negligible.

*Standard 22. Head rests (neck injury prevention)*

This standard is of importance in preventing what is probably the most common of all automobile accident injuries, the hyperextension strain or whiplash injury of the cervical spine. 41% of all accidents occurring in New York State in 1964 were rearend collisions. 56% of accidents occurring in the Chicago Freeway in 1963 were rearend collisions. One-fifth of all rearend collisions results in neck injury. Although this injury is seldom fatal, it is quite disabling and may be permanently so for the older patients. The use of a headrest will minimize or prevent most of these injuries.

*Standard 25. Rollbars*

This standard is essential for protection of restrained occupants in open vehicles. Rollover accidents can result in serious injury, particularly for the restrained occupant in a vehicle such as a jeep. A rollbar is essential to obtain full

benefit from the use of a restraint system without imposing a penalty should a rollover accident occur. At present, this standard will apply only to commercial type vehicles.

*Standards 7, 9, 10, 11, 12, 15, 16, 17, 23, 24, 26*

The standards not considered above are of major importance but are primarily of engineering concern and are related to vehicle control, lighting, visibility, communications and fire protection. These standards will prevent accidents but are not directly injury attenuating.

#### FUTURE STANDARDS DEVELOPMENT

The initial standards have already been modified and augmented. One of the virtues of PL 88-515 is that the standards can be readily modified as research produces more knowledge and manufacturing technology develops.

Changes in the current and proposed standards will have to be considered in the future. Shoulder harnesses must be convenient to use. The present harness configuration permits two buckles. It is almost certain that a single release type harness configuration can be developed in the future. In addition, the problem of submarining (slipping from beneath the harness system) has become apparent in racing and research conducted by the manufacturers. Seat design changes appears to be most likely means of preventing this but the exact configuration remains to be determined.

Present standards covering dashboard design are minimal. Better plastic energy absorbing materials are available. Improved contours and the use of collapsible metal backings will also greatly enhance the energy absorbing characteristics of the dashboard.

Of greatest importance, however, is the consideration of the unrestrained occupant. The present standards are based entirely on the assumption that the occupant is restrained. Usage rates for seat belts have steadily dropped as their availability has become more widespread. Recent Cornell studies have demonstrated that usage rates are below 25% for 1965 model cars. Therefore, it is most important that consideration be given to the unrestrained occupant. Two such European cars have already been designed (Sigma car and Farina Fiat). Other approaches are also possible. The use of a thin transparent, elastic film several inches away and in front of the windshield has been proposed as a basket to catch and decelerate the forward moving head. The use of an extended padded dashboard and a forward displaced and sloped windshield might also be a successful means of decelerating the unrestrained occupant.

Steering control standards (FS 4) are also minimal. Rearward displacement of the steering columns could easily be restricted to 2 inches instead of 5 inches. Furthermore, the steering wheel itself should be softened and broadened to reduce pressures. Liver injury is occurring in spite of collapsible steering wheel designs which have been available since 1956. The use of a broader hub should significantly reduce this type of injury. A European manufacture already uses this as a standard design.

Safety door latches and hinges (FS 5) should also be upgraded. Present standards are met by most car manufacturers but doors still open and occupants are ejected. Obviously, improvement in the strength of the door frames and bodies will be necessary to adequately meet upgraded door hinges and latch requirements but this is vital to reasonable occupant protection.

Roll bars (FS 25) should be required on all convertibles and not simply open commercial vehicles. Injury occurs frequently in rollover accidents involving small open type vehicles. Racing has proven the value of roll bars for vehicles of this type.

#### BENEFITS EXPECTED FROM SAFETY STANDARDS

As yet, there is no data based on broad experience utilizing the standards under FS 515. However, limited experience based on cars in which some of these safety devices are available has already demonstrated their value. The Rover, an English Compact car, has been designed and constructed with many safety features as standard equipment. This includes an impact resistance steering column, shoulder harnesses, dashboard padding and designed for impact protection including the knees. Recently, two executives survived with minimal injuries a headon impact at more than 60 mph riding in a Rover 2000.



Five years ago the Los Angeles Police Department began equipping special cruisers for freeway patrol. These vehicles included roll cages, head rests and shoulder harnesses.

All automobile racing organizations in this country require the use of seat belts and roll bars. The professional racing groups, using single seated cars on cars with special bucket seats, require shoulder harnesses as well as helmets. While racing remains a dangerous sport, particularly for the driver, the use of safety devices permits him to escape unscathed many accidents which would otherwise have resulted in fatal or serious injury.

The survivability of the majority of the fatal accidents is completely within the realm of possibility. The manufacturers have shown in crash studies that the vehicle itself decelerates at an entirely survivable rate. It is the second impact of the occupant with the inside of the vehicle that produces injuries. Proper configuration with respect to pressure attenuation and energy absorption of the interior structures will do much to minimize the injury produced by the second collision. Restraint of the occupant is even more effective in protecting the occupant of the gradually decelerating vehicle. With proper design, headon impacts up to 50 mph should be entirely survivable, and impact at lower speeds should not result in any injury.

#### LEGISLATIVE IMPLICATIONS

Federal Standard 515 should be immediately applied to all new cars sold in interstate commerce. These standards are sound in content and based on the best knowledge currently available. Furthermore, they are of reasonable cost and sufficiently flexible so that they may be changed as more research knowledge becomes available and as manufacturing technology progresses. The standards should be mandatory and not permissive. Manufacturers have had ample time in the past 35 years to introduce safety standards and design features into their cars and they have not, particularly in the area of occupant protection. Furthermore, these standards should be promulgated by the federal government and not by state governments. A single federal standard, rather than fifty or even two different state standards, will avoid chaos which will almost certainly ensue if the states write their own standards. The American Association for Automotive Medicine vigorously supports the application of Federal Standard 515 to all new cars sold in interstate commerce and furthermore, advocates immediate application of these standards.

AAAM also strongly supports the establishment of a Department of Transportation, particularly to coordinate and administer broad research programs in automobile safety. The magnitude of the automobile accident injury problem is such that a major national program involving a broad expenditure is justified. Any other epidemic of this magnitude, which is the fourth most common cause of death for the population in general, would long ago have been the object of an intensive and broad scale medical research program. Because the accident injury problem involves a multitude of disciplines, many outside of medicine, a significant research attack has not been forthcoming. However, under the leadership of the Federal Government and specifically, the Secretary of the Department of Transportation, such a program can be undertaken.

A research effort, which deserves particular recognition and support, is the development, construction and testing of a prototype safety car. The feasibility of this type of effort has been demonstrated by New York State and Fairchild-Hiller Aviation Corporation. This program is undertaking the design of a car incorporating safety along with the multitude of other factors which receive attention in automobile design. Many design approaches can be developed in this way. Furthermore, this program will result in the production of enough cars to permit actual crash testing, something which has never before been done with a safety designed car. The benefit to the industry and to the motoring public will be the development of safety devices and design features which can be applied to production cars. The program is not intended to tell Detroit how to build their cars but to simply provide guidance in the development of safety standards which can then be applied to Detroit manufactured cars.

In conclusion, physicians are in the unhappy position of witnessing the injuries and deaths caused by automobile accidents. Those few of us who have intensively studied the problem long ago came to the conclusion that automobiles could be designed so that the majority of now fatal accident can be survived and that

the injuries produced by automobile accidents can either be minimized or prevented entirely through the use of safety devices and design features. The American Association for Automotive Medicine strongly supports legislation which will immediately apply the federal safety standards to all new cars sold in interstate commerce and which will establish a Department of Transportation to further develop and insure the application of these safety standards. A major part of the efforts of the Department of Transportation should be devoted to a broad research program into the causation of automobile accidents and into the attenuation and prevention of automobile accident injuries. Particular attention should be given to the development, construction and testing of a prototype safety car.

(The following letter was subsequently received from Dr. States:)

AMERICAN ASSOCIATION FOR AUTOMOTIVE MEDICINE,

May 2, 1966.

HON. HARLEY O. STAGGERS,  
*Chairman, Committee on Interstate and Foreign Commerce,*  
*Rayburn House Office Building,*  
*Washington, D.C.*

DEAR CONGRESSMAN STAGGERS: I am very sorry that I was unable to orally present my testimony before the House Committee on Interstate and Foreign Commerce on April 27, 1966. I am a practicing physician (orthopaedic surgeon) and came to Washington at my own expense. I had a longstanding program commitment with the Connecticut State Medical Society the following day and was unable to stay over.

Hopefully, my testimony will be read into the Record and will come to the attention of the committee. I listened to some of the questions asked of Mr. Bugas late on April 26, 1966 and to Mr. Hoffa's and Mr. Kellner's testimony and to part of Mr. Scalise's on April 27, 1966 and to the many excellent questions asked by the committee. My impression was that witnesses familiar with the scientific and research aspects of the automobile safety field will be essential in successfully developing a bill. The witnesses appeared to have a preponderance of expertise in the legislative and political fields but not in the scientific background.

RECOMMENDATIONS

I believe that Title 1 of the President's package (H.R. 13228) should be strengthened by applying the present and proposed General Services Administration Standards to all new cars beginning with the 1968 models. There is insufficient time for application of these standards to the 1967 models. The GSA Standards are selected for reasons enumerated in my testimony. Many other standards have been alluded to by various witnesses but as yet these ideas are not sufficiently developed to be written into definite standards.

Future development of the standards hopefully will remain the responsibility of the GSA until the Department of Transportation is established and a secretary selected. The GSA has proved itself responsive and imaginative in standards development but at the same time has promulgated completely practical basic standards of reasonable cost.

The compromise suggested by the Automobile Manufacturers Association is completely unworkable and would interminably delay the development of standards. The organization and inability to function of the vehicle equipment safety compact is carefully documented in Jeffery O'Connell's article, "Taming the Automobile" published in the Northwestern University Law Review, Volume 58, July-August 1963. Much of this material is included in Mr. O'Connell's forthcoming book "Safety Last." New York State has become sufficiently disenchanted with the function of the VESC that legislation withdrawing the state from participation has been considered. I hope that the delegation from New York State which was to have appeared before your committee on April 28, 1966 will have carefully explained our disappointment with VESC.

I am also concerned that the Department of Commerce would not be a suitable standards developing agency because of their longstanding reluctance to go against the wishes of the automobile industry. When the Roberts Law was first developed the Department of Commerce was considered initially as the implementing agency but the GSA substituted because of reluctance within the Department of Commerce to develop adequate standards.



I would like to again request an opportunity to testify before your committee. I believe that I can make a contribution to your deliberations because of my experience and awareness of the medical and engineering aspects of the problem.

Sincerely,

JOHN D. STATES, M.D.,

*President, American Association for Automotive Medicine.*

Mr. MACDONALD. The hearing is now recessed until Tuesday, May 3, at 10 a.m.

(Whereupon, at 5:35 p.m., the committee was recessed, to be reconvened at 10 a.m., Tuesday, May 3, 1966.)

It is not to be understood that the above is a complete list of the names of the persons who have been named in the above report. It is only a list of the names of the persons who have been named in the above report.

The names of the persons who have been named in the above report are as follows:

1. The names of the persons who have been named in the above report are as follows:

2. The names of the persons who have been named in the above report are as follows:

3. The names of the persons who have been named in the above report are as follows:



## TRAFFIC SAFETY

---

TUESDAY, MAY 3, 1966

HOUSE OF REPRESENTATIVES,  
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,  
*Washington, D.C.*

The committee met at 10 a.m., pursuant to recess, in room 2123, Rayburn House Office Building, Hon. Harley O. Staggers (chairman) presiding.

The CHAIRMAN. The committee will come to order.

On March 15 the Committee on Interstate and Foreign Commerce commenced hearings on traffic safety. Many of you perhaps were here throughout the March sessions of the hearings, and I also assume that many of you were here last week for the second session, but for those of you who were not, and for the record, I want to again make the point, and emphasize the point, that these hearings are the most important ones before this committee in this Congress, and perhaps will be the most important ones to face this committee for many Congresses to come.

As I look around this room, I know that there are some here present who have had firsthand experiences with the dreadful consequences of traffic accidents since these hearings commenced some 6 weeks ago. Traffic safety is an urgent matter and we must find a way to reverse the trend and curb the senseless killing and maiming of individuals which are affecting the lives of every family in this Nation.

As I said at the outset, this is a full-scale hearing. We want to make a thorough record so that the Congress may achieve the most desirable solution which we can bring to this problem. We are not interested in name calling nor in disputes over what could or could not have been done many years ago. We are interested in constructive recommendations and legislative proposals which can be discussed and considered as we go forward in our drive for a solid legislative result.

I am appreciative of the deep and active interests of all parts of the country in this program and I am sure that I can speak on behalf of the entire committee when I pledge earnest and dedicated efforts toward the goal of improvement.

I just thought this morning that if we could divide up the accidents in this country into regular intervals, that from the time we commenced this hearing this morning until we adjourn at noon, there would be at least 12 people killed in this country. If we had those people—and it is not possible—brought in here one at a time as this happens, before this committee, I am sure we wouldn't delay long in bringing forth an effective bill, and especially if this happened to affect some member of our family.

So again I say that we are interested in getting something done and getting it done as soon as possible. We know that the car is the instrument, and we know that the driver, too, has his responsibility. We want to, as a committee, go into both facets as much as possible to see that the car is made safe, and that some of these irresponsible drivers that we know are on the highways are taken off the highways; also, we will consider the subject of inspections—some form of regulation which will lead to improved vehicles and improved drivers.

Our first witness this morning is the very distinguished Hon. Abraham Ribicoff, U.S. Senator, former Cabinet member, former Governor, former colleague of mine in the House. We came to the Congress together some 18 years ago.

We are happy to have you with us.

**STATEMENT OF HON. ABRAHAM RIBICOFF, A U.S. SENATOR FROM  
THE STATE OF CONNECTICUT**

Senator RIBICOFF. Thank you, Mr. Chairman. I am pleased to be here. May I say that the Chair and the chairmanship is very becoming to an old friend.

Mr. Chairman and members of the committee, there is no need to describe again before this committee the full dimensions of the traffic safety problem. The only question is: What should we do about it?

You have before you H.R. 13228, introduced by your distinguished chairman. As I have said on previous occasions, this is essentially a sound bill which requires only some tightening and strengthening to achieve what has long been lacking in this vital area; namely, an effective Federal effort to deal with a shocking national problem.

In simple language, we are forced to establish a Federal role in highway traffic safety because State and local authorities have been unable to do the whole job. They have done what they could—through licensing, through enforcement, through highway construction and traffic controls—to provide the motorist with the safest possible motor vehicle travel. This bill, backed by adequate funds, will help them do a better job of meeting their traditional responsibilities.

But the problem goes beyond that. In title I of the President's bill we are talking about the establishment of Federal safety standards for motor vehicles, basically because we can no longer permit vital matters of public policy to be decided solely by the automobile industry. And, Mr. Chairman, I submit that with today's accident statistics, the inherent safety of the motor vehicle is a matter of public policy.

You can argue forever about the relative responsibility of the driver, the vehicle, and the road in causing accidents, but we will never have a truly effective program of traffic safety until we make a clear distinction between the cause of accidents and the cause of injuries which result from accidents.

Imagine for a moment a car moving along a highway. A flash of sunlight reflected from a shiny windshield wiper momentarily blinds the driver. Here one can argue that the car itself is at fault.

Dazzled by the glare, the driver lets his car swerve to the right, off the pavement. The driver should have been more alert. He is now at fault.



In an instant, a wheel of the car catches in the soft, muddy shoulder of the highway, throwing the vehicle out of control. It smashes into a telephone pole set dangerously close to the side of the road. Here the road is at fault on two counts.

This analysis of an accident is helpful as far as it goes. It suggests that we can do certain things to cars, to drivers, and to roads that will help prevent accidents. But the analysis is inadequate. It does not go far enough.

Let us assume that the driver of this vehicle—like so many others—was killed or severely injured. It was not the telephone pole that caused his death. It was more likely the crushing impact of the steering column against his body, or the result of head injuries from striking the dashboard.

This is the second collision. With proper restraining devices, with a different kind of steering column, with a different kind of dashboard, the second collision need not take the lives of thousands of Americans every year, and injure millions more.

This is the crux of the matter. This is why we must provide the machinery and authority for the mandatory establishment of minimum safety standards for motor vehicles to take effect as quickly as reasonably possible. We must also provide the means for extending our knowledge about accident and injury prevention. This requires adequate financing for research, including the construction and testing of prototype safe cars.

As the President's bill is presently drafted, it leaves the setting of motor vehicle safety standards to the discretionary judgment of the administering Secretary. It provides that 2 years after enactment, the Secretary of Commerce, after making certain findings, would be authorized to set safety standards for motor vehicles and motor vehicle equipment, which would become effective no sooner than 180 days and not later than 2 years after issuance of the standards.

The Federal Government's response to the shocking problem of traffic safety in America has been slow in coming. We cannot speak now of discretionary authority and years of delay in setting standards for motor vehicle safety without thinking of the human price that must be paid. We have a responsibility to make affirmative national policy in this vital area. To adopt the language of the present bill would be to see 40 or 50 million new cars roll off the assembly lines free of any safety regulation, and in the meantime, the death toll on our highways would be climbing from 49,000 to 60,000 a year.

I urge this committee to tighten the President's bill along the lines of an amendment I have introduced in the Senate which would make mandatory the setting of motor vehicle safety standards within 1 year after enactment of this act, and would cause those standards to become effective no sooner than 180 days and no later than 1 year from the date on which the standards were issued. The amendment also provides for annual review and appropriate revision of these standards as the Secretary deems necessary.

The Secretary of Commerce should not be asked to set safety standards in a technological vacuum and that is why I have introduced a second amendment that would direct the Secretary to undertake a program to construct and test a prototype safe car and authorize him to

fund up to 90 percent of the cost of constructing and testing of a prototype safe car produced by a State.

The President's bill should be amended to require that the Secretary of Commerce be furnished with copies of all notices, bulletins, and other communications sent by auto manufacturers to their dealers or customers concerning possible defects or deficiencies in any motor vehicle or piece of motor vehicle equipment. The Secretary would then be in a position to alert the public to any safety hazards which he felt warranted special notice.

If an unsafe condition is uncovered in a particular make or model of automobile, the public deserves to know about it immediately, not simply when it suits the convenience of the dealer or manufacturer. The air of confidentiality adopted by auto manufacturers with respect to defects or deficiencies in their products has not served the overall public interest. I think recent admissions and actions by the industry itself offer ample evidence of the need for continuing review of the procedures used to recall cars for safety-related modification.

Maintenance of adequate quality control is a problem for every manufacturer in this increasingly complex world. It is a particularly pressing problem for the auto industry which is called upon to produce, in less than a year's time, almost 10 million motor vehicles—every 1 of which contains some 14,000 separate parts.

Even with the most selfless dedication to the public good, quality control can slip and deficiencies occur. My amendment would simply assure that the public received prompt and adequate notice of any motor vehicle defects which could give rise to accident or injury.

The need for this extra measure of protection is obvious. Let me give you just one example.

A retired member of the Armed Forces, now living in the Washington area, called my office a few weeks ago to say that he had bought a new car in Norfolk, Va., early in 1964. Some months later he retired from the service and moved to Washington. At 14,000 miles the power brakes on his car began to act up—sometimes locking unexpectedly when the brakes were applied.

He took his car to a service center and was told that the master brake cylinder was defective and should have been modified on the basis of a defect bulletin sent out by the manufacturer in the spring of 1964. For some reason, this particular car owner was never notified and he continued to drive his car at the risk of a serious accident that could have killed him, his family, and other motorists.

Section 111 of the President's bill, which deals with records and reports, should be amended to include a provision for annual reports to Congress by the Cabinet officer responsible for administering the Safety Act. It is vitally important that Congress be kept thoroughly informed about how this bill is being administered and with what effect. If the Secretary needs additional resources or authority, then we should learn of it promptly.

Federal standards for motor vehicles and the need for more vigorous and effective Federal activity in traffic safety are not the whole answer, however. When all is said and done, it is up to the States to carry most of the burden of making highway travel safer. In matters relating to the licensing of drivers, the registration and inspection of



motor vehicles, law enforcement, traffic control, accident investigation, and maintenance and construction of highways, the States have primary responsibility. The Federal Government should offer guidance and financial assistance.

Vehicle inspection and driver training are two essential elements in any State or local effort to promote greater highway safety. They work. We know they work. And yet, only 20 States and the District of Columbia require periodic vehicle inspection and only 45 percent of eligible students are enrolled in driver training courses in our secondary schools.

Although I recognize that this part of the administration's bill is not pending before this committee, title III, as presently drafted, can do little to help the States in these two essential areas. The \$420 million which title III would allocate to the states would be stretched over 6 years and would be earmarked for State "program" grants, as distinct from grants for specific categories of safety activity. Averaging this money out over 6 years, one can estimate that an average State would receive about \$1.4 million annually to help do all the following:

- Establish an effective accident record system;

- Improve driver performance;

- Provide for vehicle safety;

- Improve highway design and maintenance;

- Better traffic control; and

- Expanded highway spot-improvement programs.

Mr. Chairman, this just isn't enough to do the job. If every penny of the \$70 million to be distributed annually to the States under section 402 of title III was devoted to driver training, it would affect less than two-thirds of the 3 million young people who become eligible to drive each year.

As a nation, we should be prepared to invest at least \$120 million each year to improve the quantity and quality of driver training in the United States. Driver training should be extended to all the young people who currently are not being reached and the Federal Government ought to assume half of the cost—or \$60 million annually.

To encourage the 30 States which lack inspection programs to adopt them, and to enable those which now require inspection to expand and improve their programs, I have recommended a \$45 million matching grant program. The Federal participation would extend to cover a share of the initial cost of establishing and operating approved inspection programs and would terminate after an agreed period of time. These inspection programs can and should be self-sustaining.

Title III demonstrates that the concept of an expanded Federal role in traffic safety poses no threat to the traditional Federal-State relationship with respect to our highway transportation system. One can argue, in fact, that many of our States will be unable to meet their full responsibilities in this area without additional Federal assistance and leadership.

The criteria and standards used in apportioning Federal money to the States can be an effective means of encouraging the States to bring their motor vehicle laws and regulations into conformity with one another. As anyone knows who has driven in different sections of the country, the lack of uniformity in traffic codes can be a factor in pro-

ducing accidents. Greater uniformity in licensing criteria and license revocation laws can also be a potent force for safety.

Now let us turn to the industry's suggested "improvements" in title I. When I read the press reports of the industry's changed attitude, I was encouraged that at last we were making some real progress. The industry's statement of April 5 before the Senate Commerce Committee was disappointing. The industry's alternative to title I was not in the mainstream of current thinking on the subject of traffic safety. It overlooked and ignored the vital role which must be played by the Federal Government in this important field.

Industry's statement of April 26, at least, is encouraging in that it brings the industry closer to reality and the needs of today. It accepts the principle of Federal vehicle safety performance standards. This is a real step forward for the industry, but in terms of its so-called "retreat," as indicated in the headlines, from the earlier position I am afraid it is more tactical than real.

Unfortunately, under the industry's new proposal, Federal standards would originate in exactly the same place as under the original proposal, in Detroit and in 50 State capitals. Federal standards to be meaningful must originate here in Washington. Detroit may be the auto capital, but Washington is the Nation's Capital and that is where the Federal authority must originate.

A careful reading of the industry statement shows clearly what they really have in mind. On page 53 we find the words:

\* \* \* we believe the Secretary should establish this voluntary standard as a legally binding Federal standard.

On page 55 we find the words:

We believe the Secretary should consider and, if he agrees, adopt as Federal standards any standards established by the Vehicle Equipment Safety Commission.

And then, placing this all in perspective, the following:

The Secretary would of course retain the ultimate authority to adopt standards that differ from the views of the States or to go forward on his own if the States delayed action, but before doing so he should certainly make reasonable efforts to arrive at a meeting of minds.

This is the key to the so-called retreat. Everything stays the same. The standards would be those set by the States and the industry. The only difference is that under the new proposal they would be issued by the Federal Government. The advantage to the industry under the new proposal is that these standards would apply to imports as well as domestic motor vehicles whereas the earlier industry proposal would not have covered imports.

Now let's imagine that the Federal Government chooses to exercise its ultimate authority. The industry statement suggests the possibility that the States might delay action or that the Secretary might have views that differed from the States. Past experience shows this aspect of delay might in fact occur.

For example, the State standard-setting agency would be the Vehicle Equipment Safety Commission. It was established in 1963, 5 years after Congress passed the Beamer resolution which granted congressional consent in advance to interstate compacts whose purpose is to promote highway safety. Another year passed before the



Commission even met. Now almost 2 more years have gone by and this Commission has yet to issue its first vehicle safety standard, except for a new tire standard issued in 1964, which only one State has adopted. Eight years have gone by since Congress said to the States: "Get together and do something about vehicle safety." Eight years and not one standard affecting the basic design or characteristic of the car itself.

But now, suddenly, there is a sense of urgency at Commission headquarters. Let me quote from a letter dated March 18, 1966—that is 6 weeks ago—from the Executive Director of the Commission. It states:

At the Executive Committee meeting in Denver, Colorado, on March 8, 9, 1966, plans were laid for expediting the work of the Commission. One of the actions taken was the establishment of a Performance Standards Committee. Since time is of the essence and since there is extreme urgency in getting something in the nature of a 'product', a suggestion to initiate reports in areas covered by the General Service Administration for which there were SAE standards, was approved. Accordingly, you will find attached a number of items that fall in this category. In event there is not general acceptance of any item, arrangements can be made to convene the committee to resolve the differences indicated. It is hoped, however, that the meeting will not be necessary; the reason being that any delay at this time would seriously affect publication of notice, holding of hearing and final action on adoption of regulations at the Committee's annual meeting.

It has taken the States 8 years, Mr. Chairman, to catch up to the GSA—8 years of procrastination, delay, and fumbling. And yet this is the group—this is the Commission on which the industry would have us rely. This group's standards—which at best will only match GSA—are what the industry would have us adopt. I think the States have had their opportunity. We can no longer follow their lead. It's time that the ultimate authority of the Federal Government was exercised in the traffic safety field.

With respect to procedural safeguards the industry voices some concern. Under H.R. 13228, an action by the Secretary will be affirmed by the appellate court if his position is supported by "substantial evidence." This is a standard rule followed in most statutes. The industry says the scope of this review is too narrow and suggests instead that the appellate court review the Secretary's action on the basis of "a fair evaluation of the entire record." Senate Report 2422 of the 85th Congress considers this a "significant change" from existing law. I urge you to examine the difference between the two proposals and if you discover that what the industry is really seeking is a trial de novo without a jury in an appellate court located where it resides, then I am sure you will reject the suggestion. I submit that a Cabinet officer of the United States, acting on the basis of substantial evidence, is acting reasonably and his action should be upheld without being subjected to another time-consuming and burdensome legal proceeding.

With regard to the industry's view that the penalties are too harsh, I tend to agree. A man who makes an honest mistake shouldn't be treated like a criminal and I would urge amendments to the bill limiting some of the harsher features to willful acts and lessening the penalties.

Let me assure the committee that my conviction as to the need for an expanded Federal role in traffic safety, including the setting of

safety standards for motor vehicles, envisions a greater, not a lesser, role for the States in meeting this national problem. Only an enlightened and healthy three-way partnership which includes the Federal Government, the States and private industry can give us the safe highways we need and deserve.

We must have some traffic safety legislation this year and the choice is clear. You can approve the President's bill; you can approve a stronger version of the bill; or you can approve the weaker version proposed by the auto industry.

I appreciate very much this opportunity to join with you in discussing our common concern over this matter so vital to the public welfare.

The CHAIRMAN. Thank you very much, Senator Ribicoff. I think you have made some very constructive proposals for the consideration of this committee.

I think the full committee knows of your progressive record when you were Governor of your State for promoting highway safety in that State and leading the Nation. All of your suggestions will be taken seriously and will be seriously considered. I think they have been gotten together carefully after due consideration on your side from the evidence you have heard.

I want to thank you for taking the time to come over here and give us the benefit of your views.

Senator RIBICOFF. Mr. Chairman, I am pleased to do so. I have great respect for this committee and its members. I don't stand on protocol and figure this is just something for me to talk about in the Senate. I know the sincerity and deep concern of this committee, and I appreciate the invitation and the opportunity to come and discuss this matter with you.

I will be more than pleased to answer any questions that members of the committee might like to put to me.

The CHAIRMAN. Thank you, again.

Does any member of the committee have any questions?

Mr. ROGERS of Texas. Senator, I would like to ask about two matters.

On page 7 of your statement you made the statement, "Federal standards, to be meaningful, must originate here in Washington."

It is my understanding that the industry's position is that there should be some kind of an evaluation of what needed to be done in the entire traffic safety field, including the design and the construction of the vehicle, itself, but that there must be some consideration given to the suggestions and the recommendations of the States, that all the States ought to be represented, and, of course, that the industry should be represented.

Do I understand by your statement that you feel that they should not be considered, that this should be strictly a Federal operation?

Senator RIBICOFF. No. Mr. Rogers; that isn't the way I envisage it. The leadership and the setting of the standards must be National and Federal in nature. I don't conceive that the Secretary is going to be arbitrary in this. My assumption is that what he is going to do is invite the industry for full, complete, and continuous discussions.

I would foresee the industry assigning someone with great responsibility and engineering competence from the automobile industry to meet continuously with representatives of the Federal Government to



work out these Federal standards on a continuing basis and a progressive basis.

I don't conceive that you are going to be able to set in 1 year every safety standard. I understand that you have to consider the nature of the manufacturing art. I am practical enough to understand the problems of leadtime in the manufacturing and designing of an automobile, that you suddenly can't do this overnight.

Concerning the States, they certainly would be invited.

I do know this: That there is a fantastic dearth of knowledge and ability in this very complicated and complex field. I know, having been a Governor, it is very hard to get these competent people.

If you would think back to your own 50 States, and I don't downgrade them, they are all run by sincere Governors, with sincere highway engineers and motor vehicle commissioners, yet they don't have the trained men and the engineering staff. I know of no State that can go in and set State standards with the staffs that they have, no matter how sincere these people are.

We have shown, by the 8 years it has taken this State organization, not to do anything.

I would conceive, Congressman Rogers, that this is going to be a continuous operation. I have said this to the Secretary, and I have said this to the presidents of the various companies, as I conceive this working.

I think we cannot assume that the Secretary will be arbitrary. I think we can't assume that he is an impractical man. I don't think we neither can assume that we in Congress are impractical people, but I do think that the basic, ultimate standards should be the standards promulgated by the Federal authority.

Mr. ROGERS of Texas. Don't you think, though, that it would be better if there was a requirement for compulsory consultation with the industry and with the several States involved?

Senator RIBICOFF. I would say when you say "compulsory" I would have no objection to putting in language that before setting the standards the Secretary would consult with the industry, give them ample opportunity to be heard, and also to give opportunity to any State to come in and consult and make their point of view known to the Secretary.

I think that might have a salutary effect, and I would have no objection to such language in the bill or in the report.

Mr. ROGERS of Texas. Actually, if you did not do this, you would be vesting the Secretary with the power to actually write substantive law, wouldn't you?

Senator RIBICOFF. I wouldn't want him to do that. I would say the report the committee gets out and the language of the bill should make that clear. I don't intend that.

Mr. ROGERS of Texas. That brings us to the second point that I had in mind, and that is your reference on page 9 to the position of the industry with regard to substantial evidence.

I think you, as a lawyer, understand that the words "substantial evidence" to a lawyer does not mean the same thing as it does to a layman. "Substantial evidence" to a layman means exactly what it says. But those of us who have been in the law know that under

the Administrative Procedure Act, "substantial evidence" does not mean that. As a matter of fact, it could mean that unless there is some evidence that will absolutely refute the findings of a commission or an administrative agency which, of course, would be the position occupied by the Secretary in this sort of a situation, his findings must stand. The court is wholly without power to overrule them in a strict application of the "substantial evidence" rule.

I think it would be much better, if you will permit me to ask a question and make a statement at the same time, if something were worked out toward a fair evaluation of the entire record.

Senator RIBICOFF. I would say what you were doing would probably not be in conformity with most of the statutes, and if you are looking for a trial de novo on all of these safety standards, you would be running into a mare's nest.

I would think the Secretary's findings, after consultation with the industry, and the States having the right to come in and make their points known, if his findings are based on what I would call substantial evidence I think they should stand.

Mr. ROGERS of Texas. What you would consider to be substantial evidence may be different from what the courts would consider to be substantial evidence. This is the point that I think is most crucial in this whole procedure when we start talking about administrative agencies. We have to make the decision sometime during the next several years as to whether or not we are going to permit administrative agencies to write substantive law in these various fields, or whether we are going to pursue the basic concept upon which this Government was founded, and that is to permit the judicial system to make these findings after a careful presentation by the parties involved.

Senator RIBICOFF. My feeling is that the court, looking at substantial evidence, would so interpret it that way, and if the Secretary made his findings after what he considers substantial evidence, then, of course, the court would have to consider whether that evidence was actually substantial and not arbitrary or capricious.

My feeling is that if it were on that basis, it would stand. This is the way I personally would interpret it.

Mr. ROGERS of Texas. The Senator is aware of the cases, certainly, that have held that substantial evidence actually does not mean substantial evidence; if an administrative agency makes a finding and there is no evidence in the record to almost absolutely contradict their findings, the court is bound by this under the substantial evidence rule, although there may not be one word of testimony to support the findings of the administrative agency.

That is not necessarily my interpretation, but this has happened in a number of matters having to do with commissions and administrative agencies.

If we could outline and work out some kind of a substantial evidence meaning that would have a basis in accordance with the kind of evidence that I have been led to believe was intended to be presented in the courts in conflicting issues, I think it would be very well.

Senator RIBICOFF. I haven't had a chance to read this, but a member of my staff just handed me the *Universal Camera Corporation* case, which I will put into the record.



As I understand, this is substantial evidence. It includes the entire record. This is a case of the *Universal Camera Corporation v. NLRB*, 340 US 474. This is a case in the Supreme Court in 1951 in which they must take in the entire record. I will be glad to submit this as part of this record.

Mr. ROGERS of Texas. Senator, the point is this, and I don't want any misunderstanding: Certainly they have to take in the entire record, but the application of the meaning of substantial evidence is the key to the whole situation.

I think if you will brief the subject, you will find that although the whole record has to be considered, you don't go into the merits of the contentions of the record.

Senator RIBICOFF. My understanding is that you do. You and I interpret it differently.

Mr. ROGERS of Texas. That is right. But we are certainly in disagreement on the meaning. If the substantial evidence is there as they have interpreted it, the courts are powerless to overrule it under the precedents that have been set.

Senator RIBICOFF. I would say again if the evidence is substantial, the court would be in a position to say so; if they find it substantial they would uphold the Secretary. They would uphold the Secretary if the evidence were substantial. I think if it were capricious, they would not.

Mr. ROGERS of Texas. By "substantial" you mean by a preponderance of the evidence as we know it?

Senator RIBICOFF. I would think so; yes.

Mr. ROGERS of Texas. Thank you very much, Mr. Chairman.

The CHAIRMAN. Mr. Springer.

Mr. SPRINGER. May I say to the distinguished Senator from Connecticut, I know of his vital interest while he was Governor of the State of Connecticut, especially in reducing speed and increasing obedience to speed.

It is my understanding, Senator, that the biggest single cause of death in the country is speed. Would you agree with that?

Senator RIBICOFF. No, I would say this about statistics: There are no really good statistics anywhere in this country. I would like to be able to tell you that by doing this you are going to do that. I have read that 50 or 75 percent of the deaths may be eliminated by some certain course. No one has gathered any real statistics that have any real meaning anywhere in the United States. This is one of the great lags.

I think what we are talking about in this bill is that for the first time you will have the Secretary gathering statistics to find out why accidents occur.

I would say that speed, in my opinion, when an accident occurs, will accelerate and make it possible for the injury to be more serious or for death to take place. I think what we are trying to do is this: I think the distinction that you have to draw here is the difference between an accident and the injury.

I think if our committee hearings did anything, it brought into the common understanding of the American people the meaning of the so-called second collision. There is no question that an automobile in-

volved in an accident with a telephone pole or another car going 70 miles per hour, the seriousness of injury and possibility of death will be much greater than the same vehicle in a crash going 30 miles an hour. I have always considered speed the gravest and most aggravating cause of death and serious injury.

Mr. SPRINGER. I know how well the Senator did, because in driving along the highway of Connecticut one evening, he was out beside the road and had stopped a car personally and was making an inspection and was giving him a very friendly lecture on the fact that being in Connecticut, the speed should have been lower, so I know the Senator is greatly interested in this question of speed.

I only asked that to come to this whole question, which I think is far more important. As I understand it, this year the automobile industry will produce somewhere between 8 and 9 million cars.

Senator RIBICOFF. Yes.

Mr. SPRINGER. There are roughly 82 million cars on the highway.

Senator RIBICOFF. 91 million.

Mr. SPRINGER. That means, then, that there are roughly 82 million cars on the highway which are not new. Is that correct?

Senator RIBICOFF. That is correct.

Mr. SPRINGER. This bill covers a great deal, may I say, in the field of what you are going to do about a car that comes off of the assembly line and is sold to someone from a dealer's agency. What disturbs me most about this bill is that there is practically nothing in it, in my estimation, and all of the discussion that I could get on the Senate side as I read the record is what is the manufacturer going to do, about the older cars.

I want to know what you are going to do about the eight-ninths of the cars which have already passed through the agency and are in the hands of somebody who is driving them, and, as a result of having been driven a year to 6 years—and I am driving a 6-year-old Corvair, a 1960, which someone told me the other day was supposed to be one of the first dangerous ones that likely was to have something happen to it if you drove at a certain speed.

Fortunately, the city of Washington has not let that happen yet. But eight-ninths of all the cars on the highways are probably a year old. To refer back to page 4 of your statement, here is a retired member of the Armed Forces now living in the Washington area who called your office. Apparently his car worked well for the first 14,000 miles. On my car, that is about a year and a half. I drive about 9,000 miles a year. Something happened to his power brakes. This is something that happened a year and a half after the car was sold. Apparently the car worked all right for a year and a half.

Where, in this bill, do you do anything, as far as I can see, toward those eight-ninths of the cars which have nothing to do with being new or have nothing to do with the fact that they have been sold recently or come off the assembly line in Detroit?

Senator RIBICOFF. Congressman Springer, let me answer this way: First, like everything, you have to start. It is very obvious that if you are going to have a telescopic steering wheel or dual brakes, and you have 91,000 cars on the road at the present time that do not have telescopic steering wheels or a dual braking system, you will not be able to put them into effect.



That doesn't mean that you shouldn't worry about the cars coming off in the future and protecting the lives of the people in the future. That is the one part of it.

Second, we try in the inspection system, between the Federal and the State, to try to make the cars on the road at the present time to be as safe as they possibly can, and to try to discover the defects that are in existence.

It is very obvious that next year's car will be a lot safer than a car 6 years old. That is in the other part of the bill.

You also have the problem of driver training.

You should keep in mind that I do not contend now, nor have I ever contended that the automobile by itself is the sole cause of death and injury. I have always contended, and I still contend, that this is a three-way proposition involving the automobile, involving the road, and involving the driver.

To be effective, we have to attack all three phases of it. But what I point out is that the automobile does play a vital role. Up until this past year everything was the driver. Everything was the nut behind the wheel. Everything was the road, without much attention being paid on what happens to the seriousness of the injury and the possible death because of the failure to have a road-worthy or a crash-worthy automobile.

Now I think we are finally reaching the stage in this country of realizing all the factors involved, which include the three. I want to see the three-pronged approach, Congressman Springer.

Mr. SPRINGER. I think your first mention there, your first point, was well taken, Senator, but I am not so sure that this bill gets at the question of inspection of those cars already on the road.

Senator RIBICOFF. I would say that, as I anticipate what is in this bill, the Secretary of Commerce, in working out with the States the formula for automobile inspection in which the Federal Government will pay half of the cost, when this is done there will be guidelines set up by the Secretary of Commerce working with the States on what the automobile inspection ought to include to try to discover this.

Mr. SPRINGER. Now we are getting some place. Let us develop it a little further.

Are you setting up standards at the Federal level which the States shall adopt? I don't understand that in this bill.

Senator RIBICOFF. No, I would say that the Federal Government gets together with the States to set up what goes into the inspection of the automobile in the inspection system.

Mr. SPRINGER. But suppose they don't get together. Then what happens?

Senator RIBICOFF. I would say if the Federal Government will pay out the money to the States, and the States are going to inspect the cars, they ought to know what they are inspecting. If you are going to have a defective or incomplete inspection system, then the Federal Government should not be paying the States for defective inspection systems.

Mr. SPRINGER. \$45 million you will give them to cooperate.

Senator RIBICOFF. That is right.

Mr. SPRINGER. But I have found out in a lot of these that you find at least 15 or 20 States with these matching grants who don't cooperate. You can name program after program which you administered as Secretary of HEW, Senator, which did not match their funds and did not cooperate.

Senator RIBICOFF. What I would do would be this, frankly: I would have it that if a car passes inspection it would have an inspection sticker on it, and if a car did not meet an inspection system approved by the Federal Government and the State, then that car could not be driven in interstate commerce.

I don't think the Federal Government can go in there and say what you would do with an automobile that you would just drive in the State of Illinois. But if you were taking your car from Illinois and driving it to Washington, then I think it ought to have an inspection system on it so that if the State of Illinois does not want to protect its own people in its own State, it should not allow you to have an unsafe car driving to Washington.

Mr. SPRINGER. And are you going to establish those at the Federal level?

Senator RIBICOFF. Yes, I would.

Mr. SPRINGER. Have you a section that does that?

Senator RIBICOFF. I can't point out what section of the bill. This isn't my bill, by the way.

Mr. SPRINGER. Let me read these words.

No State or local government, law, regulation or ordinance shall establish a safety standard for a motor vehicle or item of motor vehicle equipment in interstate commerce if a Federal motor vehicle safety standard issued in conformance with the provisions of this title is in effect with respect to that motor vehicle or item of motor vehicle equipment; and any such law, regulation or ordinance purporting to establish such safety standards as providing a penalty or punishment for an act of noncompliance therewith shall be null, void, and of no effect.

That is page 4, line 21 through 25, page 5.

Senator RIBICOFF (reading): To encourage the 30 States which lack inspection programs to adopt them and to enable those which now require inspection to expand and improve their programs, I recommend a forty-five million dollar matching grants program.

The Federal participation would extend to cover a share of the initial cost of establishing and operating approved inspection programs, and would terminate after an agreed period of time.

This is one of the things that I recommend.

May I say that I think the administration bill is defective in many ways, and this is one of the amendments that I propose.

Mr. SPRINGER. May I say to the distinguished Senator that I agree with him. Everyone is very emotional about the new car, and there ought to be some standards. I am willing to go along with this. But everyone is running from 82 million automobiles that are on the highways, which are not, in my estimation, covered by this bill. There isn't any proper inspection system for them.

Senator RIBICOFF. But there should be.

Mr. SPRINGER. I have talked with at least three Senators and I can't get a word out of them. They have been shouting to the newspapers about how awful the auto industry is, and here in my estimation is the most important crux in this whole bill, what you are going to do



about these cars that are running around on the highways which are unsafe, period. They are far more unsafe than those being sold out of dealer agencies every day.

Just to bring this up a little bit more, I want to read this item.

Vehicle inspection and auto death rate. Harvard University news release, April 20, 1966. Investigators at the Harvard Medical School have discovered a relationship between lower auto death rates and annual or semi-annual or annual vehicle inspection. Statistics for 1960 show that States which inspect had a lower death rate for the male population between 45 and 54 when compared with non-inspection States.

In addition, the study revealed that two inspections annually appeared to be more favorable than one.

May I say to the distinguished Senator that any bill that I support is going to cover these 82 million automobiles which, in my estimation, are far more dangerous than an automobile that I drive out of an agency.

Senator RIBICOFF. You see, Congressman Springer, this bill has been divided. You have title I. Titles II and III are before the Public Works Committee in the Senate and in the House. Therefore basically, what is before this committee, which is before Senator Magnuson's committee, is title I, having to do with the automobiles.

Then you have the Public Works Committee. I appeared before Senator Magnuson's committee and confined myself to title I. Then I appeared before the Public Works Committee holding hearings on title II and title III. Then I introduced a series of amendments to cover what I consider basic weaknesses in title I, title II, and title III. Those were placed in the hopper.

Therefore, the amendment that you are talking about and that I am talking about should definitely be in the bill, and this, I imagine, somewhere along the line you will be talking to the Public Works Committee about to try to work out a bill that will cover all of it so that you will have a good overall bill.

Mr. SPRINGER. May I thank the Senator. I know how much he has been interested in the problem through all the years. I appreciate your taking the time to testify before this committee.

Senator RIBICOFF. Thank you, Congressman Springer. If you wish, we can send over my amendments with an analysis into the record. I imagine your staff could get out for you the wording of my amendment to cover what I think you and I are in agreement on.

Mr. SPRINGER. Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Friedel.

Mr. FRIEDEL. I want to compliment you for your very fine statement, Senator. I have followed for years your work in traffic safety. I, too, have always been for traffic safety.

Back in 1956 I introduced the first resolution to create a Special Traffic Safety Committee. I was a member of this special committee and we visited the plants of General Motors, Ford, and American Motors, and we saw then that they were doing a lot of research on safety. They had a lot of known safety devices. But too many were optional and not standard equipment. Our committee complained about that then.

They gave demonstrations of running cars into walls, turning them over, with seat belts, electronic things on dummies. We found then,

10 years ago, that about 85 to 90 percent of all the accidents were caused by the human element. That was the unanimous opinion of the committee on the basis of the information we had. We did find a lot of fault with the human attitude, and drivers' education. They were not giving the proper driver education then.

I am glad to note your comment on page 6 of your statement, that this just isn't enough to do the job. If every penny of the \$70 million to be distributed annually to the States under section 402 of title III was devoted to driver training, it would affect less than two-thirds of 3 million young people who become eligible to drive each year.

I agree with that wholeheartedly.

Senator RIBICOFF. That is one of the amendments I have submitted; yes, sir.

Mr. FRIEDEL. I know something has to be done on standards and safety equipment. But I have a newspaper article stating that over the weekend 12 persons were killed in traffic accidents. In not one instance is there any indication that the car was the cause of the accident.

Senator RIBICOFF. Congressman Friedel, I think what I am trying to make as clear as I can—and we are talking about different things—is you are talking about accidents and I am talking not only about the accident, but I am talking about the extent of the injury and the death. What I want to point out to you is that most of the serious injuries and deaths are caused by a crushed chest against a stationary steering post. You are traveling 40, 45, 50 miles an hour and you are in an accident. Suddenly that is the first collision, when you hit a pole or hit a car.

The second collision takes place when you are thrown in that automobile against that steering post. If you had had a collapsible steering post that would have given with your body, you might have had a bruised chest, but you wouldn't have a crushed chest.

You may be driving along the road and you have your small child in the seat next to you. You are involved in another accident. That is the first accident. The second collision takes place when your child's head is thrown forward against the dashboard and strikes a metal or steel protrusion, a cigarette lighter or a radial dial knob. It enters the child's head, crushing the skull and it kills the child. If you had had either rubber or plastic instead of steel protrusions, that child might just have a headache instead of dying.

What I am trying to point out here is what causes an accident and what causes an injury and death are two different things.

What I am driving at, and I think what we have done in altering America, and why the automobile is involved today, is not just the question of the accident, as I don't think there is any question that the overwhelming number of accidents are due to human error and human fault. But what I am saying is since we are imperfect beings, since the human being is imperfect, and is going to make mistakes, and is always going to err, then under those circumstances we must improve whatever we can improve to minimize the number of deaths and injuries.

Let me say this: If you take the safest car that human ingenuity and engineering can devise, and if you put a reckless person behind



that wheel, all liquored up, going 70 miles an hour down the highway, and who crashes into a pole, he is going to die. There isn't anything you can do about the car. That is that person. Something is going to happen to that person without a question.

What I am talking about is the many people who are not drunkards, who are not speeders, who are going to get involved in accidents, and heavens knows there are many that do; what I am saying is we must look at this whole process and try to minimize the seriousness of the injury and the number of deaths. I think this is the significance of what I think we have been trying to put across during the past year.

Mr. FRIEDEL. I am in accord with you on that. I am just trying to bring this out in my way. I am for all the known safety devices being standard equipment. I have advocated that for a long, long time. I am the one who has been preaching and praying for a rear window wiper for a long, long time. Every time I bring it up, people seem to laugh at it. Even if it is optional it ought to be on the car, especially in the northeast area. It would be helpful, very helpful. It would help people to see through their rear window in bad weather.

I am glad you brought out your six points about keeping statistics, improving driver performance, providing for vehicle safety. All these things that you bring out are very, very good. I was convinced back in 1957 that the industry was trying to do a lot of things. They were doing research with the steering wheel then.

When our committee visited the auto plants they were testing the recessed steering column, and how much pressure it would take before the steering wheel would bend and break without the driver going into the column.

The telescopic wheel is even better. It is now standard on some cars but I hope it will soon be standard equipment on all cars. There are a lot of things that can be done and should be done. But I think driver education is important. Inspection is also very important.

Maryland is the first State to have inspection for used cars when they are resold, but there is no inspection required for new cars. You can have a car that is 10 or 12 years old and as long as you own it there is no inspection required.

I drive a car and my license must be 40 or 45 years old. All I do is send in \$2 and it is renewed every 2 years. That is not safety. That is just revenue. I think there should be standard things on reviewing of drivers' qualifications after 5 or 10 years, making them go through another test.

There are a lot of things that should be done. All three factors, the roads, the driver and the automobile, should be improved.

I want to thank you for your statement.

Mr. ROGERS of Texas (presiding). Mr. Younger.

Mr. YOUNGER. Thank you, Mr. Chairman.

Thank you, Senator. I can't help but remember the last time I recall of your being before this committee when you made the most startling statement I ever heard made before our committee when you said Congress appropriated more money to NIH than you could possibly spend. Such a statement has never been equaled by any Cabinet officer who has ever appeared before our committee. So I know your sincerity.

You just made the statement that you thought most of the deaths occur because of the crash against the steering wheel. We have had evidence from a number of people who claimed that more deaths occurred as a result of the doors opening up and the driver or occupants being thrown out of the car.

Senator RIBICOFF. The instrument in the car, the thing in the car that causes most deaths, the instrument of the single thing in an automobile that causes most deaths when struck, is the crushed chest.

Mr. YOUNGER. That is if you stay in the car.

Senator RIBICOFF. Yes.

Mr. YOUNGER. But we are talking about those who don't stay in the car and who are thrown out.

Senator RIBICOFF. You are correct, Congressman Younger, in that.

That is one of the things you need, stronger door locks and so forth. Mr. YOUNGER. Yes. But even if you put door locks on and they are automatic, you will find a lot of difficulty because people will be locking their keys in their car and will be going off and getting a policeman to come back and open up their car. There are locks on the cars now. If they would all lock their doors when they are driving, you would probably have less people thrown out.

I was interested in your amendment. That is on page 3. You said that the safety standards should be set within 1 year after the enactment of this act and would cause those standards to become effective no sooner than 180 days.

From a practical standpoint in manufacturing, how can you possibly set a standard that requires retooling or some change in a car and expect the manufacturer to stop all production? That is, for a change within 180 days.

Senator RIBICOFF. It will not work that way. I will give you an example. The automobile industry came before our subcommittee last June or July. I then talked to them about dual brakes and telescopic steering wheels. If I recall their testimony, it was indicated that it wasn't necessary and they couldn't do it. Yet in the early part of this winter, I think about February, Mr. Roche, of General Motors, came up to see me and stated that they were going to put on next year's cars telescopic steering wheels and dual brakes.

Let me say this, Congressman Younger: There are many pieces of safety equipment that the automobile companies have on the shelves. Our studies showed that a telescopic steering wheel was something that most companies had inventions on more than 10 years ago. It doesn't take them long to take them off the shelf and put them on once public pressure comes into effect.

It becomes obvious to me that you will not make them stop production on all their cars to make an entirely new car. It can't be done. But there are certain items that can be done within the normal manufacturing process, the art of manufacture, and the leadtime required.

I look at this as a progressive, continuous process. I don't think that within a year you are going to have the car that is the final answer. I would gather with research, both in the automobile industry and also from the Government—they will have research—I would hope we would vote a prototype car where you would try to delve into how you would make a safer car.



I would guess, as GSA—well, I notice in this Sunday's New York Times the GSA has a list of features that they are going to ask to be placed upon 1967 cars. There are many items listed here. I haven't counted them. I will count them now. There are 17 additional items to the 17 they had a year ago. They are going to require these on automobiles.

Let me say this: The automobile industry just isn't going to sell 60,000 cars to the Federal Government with these safety features. Once these safety features are placed into effect, they are going to go into the cars that you and I buy, our wives and children are going to buy.

But what I don't want to do is to see a 5-year lag in safety standards, and another 50 million cars on the road. Congressman Springer makes the point that we have 91 million cars on the road today. You are talking about the future, what do we do about the 91 million. I don't want to see another 30 or 40 million cars on the road that don't have as many safety features as we can possibly put on them.

This, to me, is a practical matter, and I think it is going to work out with a sense of practicality and commonsense because the Secretary is not going to sit down arbitrarily and rule the automobile industry. I think the automobile industry is a great industry, and I think the automobile industry is vital for this country. I don't want to harm the automobile industry. I want to see the automobile industry prosper. I want to see the automobile industry successful.

I think what is going to come out of all of this, Congressman Younger, is that we are going to have better cars with greater quality control, and a great deal more care in the manufacturing process than we have had in recent years. I think the automobile industry realizes it. I think the Washington Post had an item on the front page today of, I think it was, 182,000 or 172,000 cars of a certain kind being called back for a basic defect.

I expect before the week is up the Big Four will give me a list of the so-called defective items they have had in automobiles over the past 6 years which I will make public. There is a basic problem that the automobile industry has been careless about, and this is one of the great problems. They are going to have to resolve it, and they are going to have to build better and safer cars.

I am confident the automobile industry will build better and safer cars. I think that their attitude has changed. I sense from many conversations, both public and private, a deep desire and a recognition of their responsibility and their desire to fulfill that responsibility to the American people.

Mr. YOUNGER. I think that goes without saying. I cannot conceive that those in charge of the automobile industry are interested in killing their customers.

Senator RIBICOFF. They are not interested in killing them, but I think they have been sort of indifferent to a basic problem in the past.

Mr. YOUNGER. There is one other question. Is it your understanding that the regulatory body, whether it is the new agency or whether it is the Secretary, or however it is determined, shall operate under the Administrative Procedure Act in setting forth the standards?

Senator RIBICOFF. Yes, sir.

Mr. YOUNGER. And also you mention about the State licensing. We have had recommendations from a number of sources that the States should no longer issue license but that they should be issued by the Federal Government.

Senator RIBICOFF. I would be against that. The problems are different. The acting chairman, Mr. Rogers, comes from a State like Texas, and Mr. Cunningham comes from a State like Nebraska, where you might have a youngster in a rural area needing to drive a farm truck to get a produce to market in a small town. The problem there of licensing is altogether different than my urban State of Connecticut where we don't have youngsters working on a farm, where you set a different age standard.

Also, the problem of licensing is altogether different in Colorado or West Virginia, in mountainous States, than it would be in a State of Iowa or the State of Connecticut. I don't want to see this type of Federal license in that respect.

I think I would allow the States to license. I think what we should have is driver education. I think when we started our drive in Connecticut it wasn't just a question of a crackdown on speeders and reckless drivers and drunken drivers, but also we put into effect, by the State paying to the towns, a driver education program. No youngster could get a license unless he passed a driver training course, which was done after school hours by the youngsters who were usually seniors or juniors in high school. There would be instructors who were policemen or firemen. They would come in at 3:30 and give a course for an hour, both theoretical and practical, about how to drive a car, and the youngster, before he could apply for the driver's license, would have to have a certificate that he passed the 6-week course.

I recognize that you have to have this. I also recognize the problem of the roads. I think this is a great problem. Part of our program in Connecticut was a complete resurvey of all the roads in Connecticut. Wherever you had a dangerous shoulder, we would put guide rails and strong steel cables against the shoulder.

Once we found you had a highway where people were crossing over the highway and causing deaths or injury by crossing the road, we would put a divider with strong steel cables. We resurveyed all the speed limits on every road in the State to make sure they were realistic, to make sure you didn't have a 50-mile speed limit on a road that was engineered for 30 miles, or you had a 30-mile speed limit on a road that should have been 50 miles. So there is much to do.

I recognize the great difference. I have traveled often in the Middle West and I am shocked to go on a narrow road where you find a drainage ditch right up against a road with a very narrow shoulder. We have no such thing in the State of Connecticut.

Yet in many States that I have traveled I have recognized a careless driver or a driver who is shoved off or involved in an accident off that road into a drainage ditch does not have a chance. This is a broad perspective. I can't reemphasize too much that I don't come before this committee or to the American people and put it all on the automobile. I certainly do not.

The driver has an important role to play and so does the road. I want to reemphasize and reemphasize that we are not going to make



a dent in this problem or take care of the future unless we attack this problem on all phases of it.

Mr. YOUNGER. Thank you.

Mr. ROGERS of Texas. Mr. Macdonald.

Mr. MACDONALD. Thank you, Mr. Chairman.

It is nice to see you again, Senator Ribicoff.

Senator RIBICOFF. Thank you.

Mr. MACDONALD. I want to compliment you on your statement. I am not going to go through your statement item by item and say what I agree with, because in toto I agree with practically everything in it.

I would like to comment on something that Mr. Younger brought out when he said you made the most sensational statement ever given to a committee when you said that the NIH had more money appropriated for it than it could spend. I will make a long-range prophesy based on the questions being asked by this House committee now dealing with traffic safety that I do not think you will ever be able to make a statement to your Subcommittee on Traffic Safety that the Congress has appropriated more money than the traffic safety people know what to do with. I wish you could make that statement.

Senator RIBICOFF. That is absolutely correct.

Let me say this, and I want to say it here, that the amounts provided in the President's bill are definitely inadequate.

Mr. MACDONALD. A second thing I would like to raise, which was something raised by Mr. Springer, when he talked about the marked difference between the number of old cars on the road and the new cars. I would just like to say, in complimenting you on being very restrained in your statement and in your answer to the question, that certainly I am looking forward to supporting any amendment which will deal with old cars, which I hope Mr. Springer will support, and I also hope that no members of the committee will take refuge behind the fact that this bill in its main thrust does not go to all cars on the road, but merely has as its main thrust new cars that are marketed.

In closing, I would like to compliment you on your breakdown of what this so-called Vehicle Equipment Safety Commission is about and ask a further comment of you. We had some people who testified before us and one gentleman, whatever virtues he may not have or have in other areas, at least knows motor vehicles.

He is in charge of all the truck vehicles, more or less, in the country. He testified he had never even heard of this so-called commission. I have checked it out a little bit and I found out that, as I am sure you know and this is why I said you were restrained in your statement, that this so-called commission does not even have a staff. I couldn't find it. They don't have any staff. They don't have any money appropriated that I was able to trace through the Appropriation Committee of the Congress.

So it is no wonder that since they have been formed they only put out one rather weak regulation about tires. I was wondering if you had any further comment about that so-called Vehicle Equipment Safety Commission which the automobile industry now says should be the guide by which the Secretary of Commerce should put out regulations.

Senator RIBICOFF. I have some material here. There is a reprint of a January 1962 publication of the Council of State Governments. The

original was entitled "Interstate Compact for Traffic Safety" and explained both equipment compact and driver license. Both grew out of the Beamer resolution.

The Council on State Governments charged \$2 for this publication. There is a reprint which has no price marked on it. It says "Printed with permission of the Council of State Governments, 1313 East 60th Street, Chicago, Ill., by the Automobile Manufacturers Association, 320 New Center Building, Detroit, Mich."

I will give you this, Congressman Macdonald. When they did print something, it was printed by the Automobile Manufacturers Association and paid for by them.

Mr. MACDONALD. I think you would agree with me that this group is hardly a neutral entity.

Senator RIBICOFF. The automobile industry? I think this, that the automobile industry for many years, and I think the Safety Council, has wanted to keep this in the States, and they keep on talking about let the States do it, let the States do it.

I think they realize that you can't take anything like the automobile and have 50 different State regulations. If there is one thing that is national in scope in our domestic economy it is the automobile. The automobile doesn't know State lines. You can stand in the road or on the main highway of any of our States, Connecticut, Massachusetts, Maryland, Nebraska, California, and you will see automobiles from every 1 of the 50 States. We are a traveling people.

Then, again, an automobile manufacturer, just from a production standpoint, can't turn out 10 million vehicles a year and try to say that this lot will go to Massachusetts, this lot to California, this lot to Connecticut. This is on a mass-produced basis and they are sold all over. No matter how you try to figure this, if there is any item in American life that we use in our society that has to have some national standards because of the very nature of the item, it is the automobile.

I don't see how you are ever going to solve this problem without having Federal standards, Congressman Macdonald.

Mr. MACDONALD. Senator, the one thing I do question, and the only reason I do question it is because I think it needs some amplification, is on page 8 of your statement, where you indicated the advantage to the industry under the new proposal, the so-called Vehicle Equipment Safety Commission, that the standards that would come out of there would apply to imports as well as domestically produced motor vehicles. It is sort of left open ended.

It would seem to me that whatever the standards are that are set up, and I will ask you the question of whether you agree so it will not be a statement from me—don't you agree that whatever standards are set up by, hopefully, the Department of Commerce, under the Secretary of Commerce, that they should apply to imports as well?

Senator RIBICOFF. Without question. Every standard should apply to every vehicle moving on the highways of America. A car that doesn't comply with the standards should not be imported into the United States. Before they are sold in the United States, the foreign cars should have exactly the same standards as the American cars.

The reason I made that statement is the automobile industry is waking up to the fact by saying that the Federal Government then



would approve the VSEC standards, which would mean that that would cover foreign cars, too.

They had left that out and realized they placed themselves in a hole. They are having stricter standards for domestic production as against foreign production. By all means, the foreign cars should definitely have the same standards. I think I can make a prediction to you now, that what we will be doing is not only upgrading the automobiles for the United States, but upgrading the automobiles of the entire world. I think most people don't realize that while our statistics are bad in the United States, they are much better than almost every large foreign country. Every other nation around the world—if ours are bad, theirs are awful. They kill people and injure them at a much higher rate than we do in the United States.

But if a foreign manufacturer is going to have to put safety standards into cars that he sells in the United States, I am sure that the people in the country of origin will demand safer cars for themselves, too.

Mr. ROGERS of Texas. Will the gentleman yield?

Mr. MACDONALD. I will be happy to yield.

Mr. ROGERS of Texas. In view of your statement that you thought these standards should apply to all vehicles, do you advocate the repeal, on page 12, section (b) (1), under section 107?

In other words, the section simply says that after the first sale of the car for other than resale purposes, the requirements of subdivision (1) of section 107 do not apply, which, of course, would exempt every car on the roads except the brandnew car that was sold.

Senator RIBICOFF. I think what you are getting to is in Mr. Springer's problem, and with what Congressman Rogers is talking about, I haven't gone into. I think that maybe Paul will ask me some questions on his proposal, too. If you want me to, I will give you some of my thinking on this.

Mr. ROGERS of Texas. I just wondered if you were advocating the repeal of that.

Senator RIBICOFF. No. I don't know whether the press reported entirely the point that Paul made, and I don't know that I understand Paul's point, and the question that you raised and the question of Mr. Springer.

I look at it this way: Once you start with model year 1967 and 1968, where there are standards set for the automobile, and those standards require a telescopic steering wheel or dual brakes, or standard A, B, and C, that car then is used for 3 years and is sold in the year 1970 to Mr. Smith in Palm Beach.

At that stage, I would say, and I don't know if this is what Paul means, that when that is sold it should contain the equipment in the original condition and the standards that were prevalent at the time the car was sold in the year 1968.

I agree with you, Paul, if this is what you mean.

Now, when we go to the question of cars, the 91 million cars, that are presently on the road, I would say it becomes very obvious. You would have anarchy. You would have a practical impossibility to say that you are going to have a telescopic steering wheel on 91 million cars. Just to install them? You couldn't supply them. You wouldn't.

have the mechanics that could do it. Or to put dual brakes on cars that don't have dual brakes.

Then I say at that stage, one of the amendments that I put in the Senate would provide on the Federal feasibility standards for inspection with the States that second-hand cars, or all cars, would have to pass an inspection system in the States which would be set up in conjunction with the Federal Government. We are talking about two different things here.

Mr. ROGERS of Texas. If the man had taken the telescopic steering wheel off of the car that you sold to Paul in Florida, in the meantime he wouldn't be covered by this act as it is written.

Senator RIBICOFF. But I would say if Paul is trying to get at this, I agree with Paul. In other words, if the man who buys a car requiring a telescopic steering wheel in 1968 then takes it off, and that car is sold in 1970, if what Paul is driving at in 1970 when that dealer sells it to you in Palm Beach, that should have the telescopic steering wheel in 1970 if that was original equipment required in the car that was sold.

I don't know if this is what Paul is driving at.

Mr. ROGERS of Texas. Mr. Macdonald, I didn't mean to go into this at such depth.

Mr. MACDONALD. I don't know what Mr. Rogers, of Florida, is driving at, so I will go back to my question.

Senator, before you appeared before us, I have been taking your name in vain, because Connecticut heads the list for nonfatal accidents of the United States, according to practically each set of statistics we have seen.

It had been my thought on the opening day of the hearing and it still is that this relates directly back to your efforts which I remember so well, coming from your neighborhood State of Massachusetts, and having driven many times through Connecticut, to the imposition of a 50-mile-an-hour speed limit.

I can personally recall that if you went 51 miles per hour a State trooper would take you into custody. A letter would be written to your home State. You would have to pay a fine, and so forth.

Since I have used that as an example in your absence, I would just like to have you confirm or deny what I have said concerning the relationship to the strict enforcement of speed regulations to fatalities and accidents.

Senator RIBICOFF. First let me say this: We don't have such a thing as a 50-mile speed limit. The roads are surveyed. You can go on the Thruway at 70 miles per hour, the Merritt Parkway at 60, and so on. What we have done I think is absolutely essential. I think the States have to survey every road because sometimes a person who moves too slowly can cause as many accidents as a person going too fast, because of the impatience of the person behind him.

We have surveyed every road in the State of Connecticut and posted the speed limits consist with the narrowness, the number of curves, the type of road it was, whether it was a domed road or what the problems were. Then we got tough.

We found one of the ironies was that a person wouldn't slow down to save his life but he would slow down to save his license. We were pretty tough about it by saying that every convicted speeder, every



convicted reckless driver, and every convicted drunken driver would lose his license, with no exceptions.

For a man who had been elected in 1954 by 3,200 votes, everyone thought goodbye Ribicoff, he is through politically. Well, I want to say that in the first year we suspended 32,000 licenses. You get very scared when you win by 3,200 and you suspend the first year 32,000. That means the wife, husband, and the whole family is against you. But it didn't work out that way.

You find that the people of a State will support strict enforcement if they feel that it is fair and everybody is being treated equally. I think what people resent is when there is a fix. I think what people resent is when John Jones, living on 30 Main Street is arrested and has his license suspended and Richard Brown living at 32 doesn't have his license suspended. Then there is great resentment.

But there were no exceptions. No matter who you were. I was in the situation where some of my best friends stopped talking to me because they lost their licenses. It was a tough thing to live with for a while.

However, we did have a strict law enforcement policy and, as I said, we had driver education, and we had engineering. We didn't have inspection, and I think we should have inspection. We don't have inspection in Connecticut. I think inspection is necessary. We didn't do everything.

I don't want to stand here and say that we had the perfect program, because we didn't. We tried our best and we stayed with it. Public opinion was with us. The newspapers were with us. Television was with us. Radio was with us. The various service clubs were with us. But we tried.

MR. MACDONALD. Senator, if I ever become Governor of Massachusetts, I will bear what you have said in mind. Actually, my question went to the relationship between excess horsepower and speed and accidents. You don't have any comments on that?

Senator RIBICOFF. I would say this, that I think one of the problems with the automobiles today is there is excess horsepower. I don't know why we need enough horsepower in an automobile to drive a car at 110 miles an hour when I don't know any State in the Union where 110 miles an hour doesn't violate either the speeding limit or reckless driving provisions or anything else.

I think we are paying for a lot more horsepower on the roads of America than we actually need. I think speeding causes more serious accidents because, what I said before, it is very obvious if you are in an accident going 75 miles an hour, or 70 or 60 miles per hour, your chances of being killed are much greater than going at 30 or 35 miles per hour. Of course, these are some of the problems that you have. And I think these are some of the problems Detroit is going to have to worry about, Congressman, because the question is raised about the cost of safety devices.

Well, I don't want to say to the American public or you people here that you are going to get this for nothing. You are not. A lot of this will cost money, this safety equipment. Again, it is a question of striking a balance. Detroit will have to figure it out. They, too, have

to have cars that are reasonably priced for the people to buy. They are going to have to determine it. They might have to take off a lot of things that are fancy, if they are not necessary. If it will cost \$100 extra for safety equipment, they will have to decide whether they will pass it on to the public, whether the public will resist, or whether they will eliminate excess horsepower, or eliminate a lot of other items that are absolutely non-essential in an automobile to keep basic cost comparable to the cost now.

These are decisions they will have to make from a marketing standpoint. I don't want to be in a position to tell Detroit whether you put a metal chrome strip around the car or you don't, or whether you put a clock in the car or you don't. But when these items start adding up, I believe they will start eliminating many of the frills in an automobile that are not necessary to make an automobile work. But that is their problem.

Mr. MACDONALD. Thank you very much.

Mr. ROGERS of Texas. Mr. Devine.

Mr. DEVINE. Thank you, Mr. Chairman.

Senator Ribicoff, I think you have certainly demonstrated your vast background in studies of highway safety and safety problems generally. It is very helpful to this committee.

I was interested, however, in the response you gave to Congressman Macdonald relative to the amount of money being invested in the area of safety. I understood you to say that the amount contained in this bill is inadequate.

Senator RIBICOFF. Inadequate; yes, sir.

Mr. DEVINE. I don't think too many people have read this bill. Everybody takes a position on it without really knowing all the details. I have scanned this bill, without making a deep study, and I find in title I there is provided for a period of 6 years about \$45 million, and in title II, which is quite short, on research and test facilities, it provides \$3 million merely for planning, but there is an open end blank check wherein the Secretary is authorized to appropriate so much as may be necessary for construction of facilities.

Then when we get back to the meat of the program under title III, it provides for over a half billion dollars over a period up to 1972. It is \$580 million under title I and \$45 million under title II.

How much do you think would be adequate?

Senator RIBICOFF. I have to add them up together. They are in the amendments that I put in. My amendments would add up to \$525 million additional.

Mr. DEVINE. Additional?

Senator RIBICOFF. Over the 6-year period.

Mr. DEVINE. On top of the provisions of the Staggers bill?

Senator RIBICOFF. Yes; \$525 million additional over the 6-year period.

Mr. DEVINE. So it is something over a billion dollars, and this relates primarily to new cars only?

Senator RIBICOFF. No; this is driver inspection and driver training. That will take most of the money.

Mr. DEVINE. In response to a previous question, you suggested that you did not feel it would be wise to have Federal or National automobile licensing, is that correct?



Senator RIBICOFF. That is right.

Mr. DEVINE. That is, driver's licenses.

Senator RIBICOFF. Yes.

Mr. DEVINE. How do you feel about inspection stations run on the national level?

Senator RIBICOFF. No; I think the inspection system should be run by the State with Federal performance standards.

Mr. DEVINE. Do you have any qualms at all about a Cabinet officer—and you were a very able Cabinet officer recently—setting national standards getting cooperation out of the States in this area?

Senator RIBICOFF. I don't anticipate that there would be any difficulty in setting performance standards for inspection between the States and the Federal Government.

Mr. DEVINE. Of course, the newspapers have handled this quite emotionally. Everybody is for safety. We are having 50,000 deaths per year and something has to be done. They obviously think this is the answer. But this resolves itself into—and I am not carrying the torch for the automobile industry because they sure caved in last week and reversed their entire field in this area—is what we are trying to do is to legislate against either poor judgment or stupidity, because we are telling people they don't know what to buy. If these people are putting out a certain kind of car, they have to take the knobs off the dashboard because people don't know how to drive, that they will run into trees and each other, and we are trying to protect them from themselves.

It would seem to me that the Secretary could set a standard to require everybody to have a helmet, over-the-shoulder harness, and a variety of things.

How far should the Federal Government go into this?

Senator RIBICOFF. May I say this, Congressman Devine, your committee—and you do it well—sets standards for food and drugs because people don't know and don't have the competence to understand. No one questions your right to do this.

I think this committee also has jurisdiction over the airplanes. You have safety standards. This committee has jurisdiction over railroads and the railroads have safety standards. This committee has jurisdiction over trucks and the ICC sets safety standards for trucks.

I just want to point out that in every field which this committee has jurisdiction, which is the entire transportation field, the only item for which there is no control or no standards is the automobile which is the largest and exceeds all the other means of transportation put together.

What we are trying to work out is that we are saying we are transporting millions and millions of miles each day with 91 million cars on the road, and we are saying that there is a Federal obligation to protect the lives and the health of the people, just as you have seen fit in your wisdom to do so with the airplane, the truck, the train, the ships, and everything else that travels. That is what we are trying to do.

May I say this: You talk about money. We spend \$2 billion to make sure we protect the lives of the two astronauts we seek to put

on the moon, and I am for protecting the lives of the two astronauts going to the moon. But if we can spend \$2 billion to protect their lives, we shouldn't worry about spending a billion dollars to protect the lives of 195 million Americans.

Mr. YOUNGER. Will the gentleman yield for a question?

Mr. DEVINE. Yes.

Mr. YOUNGER. Did you read, or have you seen the testimony of Mr. Hoffa of the other day?

Senator RIBICOFF. No, I did not.

Mr. YOUNGER. It is true that the ICC does have safety regulations on trucking, but Mr. Hoffa testified that they were of no value at all, and that the ICC was not doing its job, that it was a complete failure.

Senator RIBICOFF. Let me say this, that this would be on the shoulders of the ICC if this were the case, then the ICC, over which this committee has jurisdiction, if what Mr. Hoffa says is true, ought to be hauled up in front of this committee and you ought to find out whether that is so or not.

Mr. YOUNGER. I was wondering how he would expect to get better administration from the Secretary of Commerce than he has received from the ICC, but he couldn't answer that.

Mr. DEVINE. I yield to Mr. Macdonald.

Mr. MACDONALD. Thank you.

Senator, in answer to Mr. Devine, say somebody in the public was aware of the danger of these knobs in the design of the cars. With your expertise in this field, could you direct them to any automobile that doesn't have these knobs or doesn't have these unsafe features?

My point is that it is a unique situation in which four companies, or really three, all played follow the leader. They are engaged in a horsepower race, it seems to me, and also in a design race. The safety features are virtually ignored by all the companies. We can't point a finger at any one company. The public does not have the choice to get a safe car. Am I incorrect?

Senator RIBICOFF. I would say that on the modern American cars that is so. I am not here to sell any automobile. My friends keep calling me up asking what car they should buy and my answer to them is that I am not in the business of selling cars.

I would say there are four foreign cars that have many of these features which the American cars can have. I don't think I should name them. However, I will say generally that the average American car is far safer than the average foreign car, from my experience.

A couple of European manufacturers have done some engineering and have done considerable work in this field, and have come up with some basic standards that are in the automobiles, and it doesn't prevent them from being competitive in their countries with cars that don't have these features.

I am confident, as a result of what has been done in the last year, I wouldn't downgrade the newspapers' role by saying they oversensationalize. I think the reason we are going to achieve something in highway safety is because the press, the radio, and television, have exercised their responsibility in reporting the news of what is developing in this field. I found that the reason I thought we were successful in Connecticut is because we had the complete cooperation and



enthusiastic support of the press, radio, and television in Connecticut who felt this was worthwhile.

The press, from my experience, has been reporting this because it is newsworthy. In other words, you are involved in an item that involves every American.

In other words, as far as the press, radio, and television you are working with something that affects every reader, every listener, and every viewer. Because the press has reported this running story for the past year, I think that the public has been alerted.

I would tip my hat to the press of American for really covering a big story and, as a result of their coverage, we are going to see a lot happen in this field.

Mr. DEVINE. That comes as no great surprise, Mr. Secretary. I might say, however, in my opinion the overemphasis was not in safety but the overemphasis was on the cause. We are here dealing with effect rather than cause.

Back in my legislative days in my home State I was the author of many highway safety bills. I applaud the program that you in the State of Connecticut had. But it seems to me that rather than confining our efforts to one small area where no reasonable statistics can be given as to how many fatalities or accidents are caused by defectively manufactured equipment, we can go into the area of the incompetent driver, the drunken driver, the irresponsible driver, the senile driver, people of that nature who cause accidents.

I read in the paper flying back from Massachusetts last weekend about a proposal where, in this overall safety area, trees were going to have to be cut down close to the highways. They are blaming trees for causing accidents. These trees don't jump out in the middle of the road. The operators drive into the middle of the trees.

Let us get to the areas that cause the accidents.

Senator RIBICOFF. But if you had a tree that was so close to a curb that during the nighttime or during heavy traffic people would be driving into this tree and getting killed, you might be in a position that you would think rather than kill a few more people you might want to cut down that tree.

May I say again I think the reason the automobile has come into this? First, I again want to reemphasize I have never and will never make the claim that the automobile is the sole cause of deaths and accidents.

I have never said that and I never will. I think the reason it has been developed that way is for all the years that all of us have been involved in highway safety, and that includes myself, all our attention has been focused upon the driver and the road, including myself.

In March 1965 our subcommittee on Government Operations got interested in the problem of the Federal role in highway safety. Then I delved much deeper into the whole problem of highway accidents. In this delving into this problem came the role of the automobile and the problem of the so-called second collision.

It took us a long time, even today, to explain what you mean by second collision. The average person did not know what you were talking about.

Then, of course, suddenly a new aspect or dimension came into the problem, and the automobile came into it as having a role to play.

That is why it is on the automobile. But again may I say that you can build the safest car in the world but you are still going to have people die and you are still going to have people injured.

That is why I think we have a big job to do with the driver, with inspection, with the confusion of science, with building roads. There is a lot more to be done and I think we have to view the problem that way.

Mr. DEVINE. Thank you.

I would like to present for the record an article appearing in the March 1966 issue of the Journal of the American Society of Safety Engineers, dealing with a warning system for highways and turnpikes. (The article referred to follows:)

[Journal of the American Society of Safety Engineers, March 1966]

A BASIC SYSTEM OF SUDDEN DANGER WARNINGS FOR TURNPIKES AND INTERSTATE FREEWAYS

(By Ivan A. Kazine, P.E.)

INTRODUCTION

The appallingly high incidence of highway accidents is a constant reminder to us of the complexity and uncertainty of modern life. Yet our high-speed highways add enormously to our enjoyment and economic well-being, and we would not voluntarily give them up. How are we to be protected in this fast-moving danger-filled environment, where "human error" is so often responsible for death and destruction?

It is fashionable to predict that computers will eventually sense danger for us on the highways and assume control of our vehicles to prevent disaster. Such an era will not come soon and it may not come at all. At least for the present, we should make every effort to derive safe highways from the intelligent use of the miraculous computers which abound in large supply on our highways—in the heads of our drivers!

The human brain has sensing, storing, correlation and control capabilities which are indeed hard to match in electronic devices. Our problem is to provide the human with information about the highway environment just beyond his line of sight, an environment to which he must react promptly and effectively in all too short a time at modern speeds of travel.

The KS system builds upon the capability of the human brain and adds to it the power of remote sensing which is so often necessary for survival on the highways. First, KS provides a trained human observer at a central station with a complete, literal representation of traffic and its movement over a critical stretch of highway. This observer plays the role of the tribal scout in a vantage point atop a tall tree.

The observer can immediately sense the possibility of danger in the flow of traffic, utilizing his finely developed human ability to study patterns of movement and decipher their significance. The observer can then warn oncoming drivers of danger ahead by activating remotely located signs along their path of travel, a much improved form of the tribal scout's cry of warning.

KS thus presents the driver with advanced warning of danger ahead and relies upon his finely developed human ability to react to the subtleties of danger in the highway environment.

KS provides the possibility of remote sensing in terms of presently developed technology. It should prove a great boon to highway safety for the many situations in which drivers will react properly, given information concerning danger ahead.—*H. Richard Blackwell.*

KS is a row of evenly spaced signs along the roadway, which light up and spell out a warning message to all motorists on an expressway or turnpike, regarding sudden roadblocks ahead and just beyond the drivers' normal range of vision.

KS is the simplest and most direct answer to the problem of natural limitations of human eyesight. It serves to compensate for our inability to see



over hills and around curves on highways. It also helps drivers to interpret motions of vehicles which are far away down the road and which, for all our eyes can tell us, may be moving fast or slow or—just standing still.

KS offers to fill the void on our modern high speed roads in sudden danger warnings. The total absence of such safety signals is taken for granted today. But so, unfortunately, are the millions of traffic accidents and almost 50,000 yearly fatalities.

The number of accidents directly attributable to the lack of sudden road-block warnings, which can be out of sight when at only 30 seconds' driving distance, are of course impossible to estimate. But it stands to reason that the headline-making car pileups and rear end collisions especially in accident prone sections of freeways and turnpikes can be reduced in frequency by signs along the roadway clearly warning the drivers of immediate dangers ahead.

The method of KS is so straightforward and simple that it would have hardly deserved to be tagged as a "system" if it were not for the careful coordination and selection of its components for ruggedness, simplicity and low cost.

It may be said that the prototype of KS is a flagman in a fluorescent orange jacket and a red flag in his hand waving down the traffic to go slow or to stop because there is a road-gang repairing the pavement some distance ahead. The meaning of the flag is—"there is an obstruction on the road ahead" and "drive slowly" or "stop for a minute." And that is precisely what KS does, except that it issues more explicit warnings, 24 hours a day and whenever and wherever a sudden obstruction has developed.

Thus there is no basis for comparison between KS and any of the several electronic or computerized traffic surveillance systems which endeavor either to exert indirect control over the movements of an automobile or to relieve its driver of his driving responsibilities entirely. Furthermore, KS has not been designed to solve metropolitan problems of traffic congestion but to make fast driving safe where high speeds are actually possible.

The poles on which the KS variable message signs are mounted can be spaced along the edges of shoulders on both sides of an expressway at intervals of either  $\frac{1}{4}$  or  $\frac{1}{2}$  mile, depending on the topography and "geometrics" of the highway. The messages spelled out in large letters of incandescent lamps can give any information desired by those in charge of operating the highway.

These can be "roadblock", "both lanes blocked", "accident", "danger", "traffic congestion", "slow vehicle" or any other legend. Below such information can appear the distance to the point of danger such as " $\frac{1}{4}$  mile ahead", " $\frac{1}{2}$  mile ahead" or "1 mile ahead."

To be effective, the danger messages on poles must appear almost instantly or in a few seconds after the roadblock endangering traffic develops. This means that somewhere within the system an observer must continuously "see" the flow of traffic throughout the 3, 5 or 10 mile section of the expressway at all times. He must have before his eyes a never-ending "motion picture" of live traffic day and night, a feat which may at first seem difficult to accomplish but actually is only a simple problem in electro-magnetic circuitry.

Devices sensitive to the earth's magnetic field are placed along the edges of the highway lanes at intervals of about 15 feet. The metal in the vehicles driving by these "detectors" disturbs the earth's magnetic "flux" and thereby introduces an electric impulse in one detector after another.

The detectors send their impulses to a Central Control Station where each one of these devices is represented by a small electric light bulb on a "total traffic display board." Thus a car driving along a KS equipped highway is portrayed on the display board by a moving point of light.

Trucks, which can actuate from 2 to 4 detectors simultaneously, appear on the board as moving dashes. From these dots and dashes the operator at Central can observe the speed of all vehicles, see those that have stopped, note collisions and traffic patterns which spell danger to approaching cars, and—respond instantly with sudden danger warnings. The operator's eyesight range, in other words, extends 3 or more miles beyond that of any vehicle driver on the highway.

Since the inception of KS in 1961, experts in vision and optics have contributed quite significantly to the ease with which the KS operators can handle their

visual tasks. Somewhat in contrast to the overall simplicity of the concept of KS, a sophisticated set of prisms and mirrors converts the appearance of the main display board for minimum fatigue in viewing and makes it virtually impossible for the operator to make errors in turning on the right message on correct poles along the roadway.

So—in sum—each vehicle on the road reports its movements to a board at Central. The operator at Central “sees” all traffic on the board and responds to dangers by pressing buttons which turn on warning messages on the road.

Of course, as almost any other network of electromagnetic circuitry, KS can be fully “automated” or the operators at Central can be replaced by an electronic computer. Such additional expense however may be justified only after an extended period in which experience is accumulated in interpreting local traffic patterns.

#### WIDER APPLICATION SEEN

Such experience need not be confined to observations by the operators only. There is no reason why any number of observers should not be admitted to Central and allowed to make studies. Traffic engineers, students and faculty members of transportation institutes and highway administrators will no doubt be attracted by the unique opportunity to “see several miles of *live* traffic in one single room” even though the vehicles are represented by dots and dashes of light.

An incidental and in time possibly important “byproduct” of KS is the opportunity it offers to take motion pictures of “live traffic” on a highway, again—with the vehicles as dots and dashes. With two cameras the traffic can be recorded 24 hours a day.

Since, at the present time, there is no other known method of taking motion pictures of several miles of traffic, such films may find a ready market among research institutions to verify for example, theoretical formulas for the flow of traffic. Both cameras can be installed at Central directly facing the display board, without interfering in any way with the work of the station operator.

Precisely, how many accidents will KS prevent in a given section of a turnpike or freeway, say 3 miles long? That is a good question. But it is no better than the same question asked about such signs as “do not feed the bears”, “falling rocks ahead”, “deer crossing ahead”, “slippery when wet”, “dip ahead” and “dangerous intersection.”

How many lives does a red traffic light save per hour or per day? How many automobiles would pile up at the bottom of a creek if we had no railings on the bridge?

And now let us take a message which, in condensed language says: “A  $\frac{1}{2}$  a mile ahead of you, beyond your range of sight, there is a pileup of cars and both lanes are blocked.” And the message is addressed to a driver proceeding at a legal speed of 70 miles an hour, having thus less than 30 seconds to prepare for the roadblock. Is such a message helpful?

#### REAR END COLLISIONS FREQUENT

Rear end collisions between passenger cars and slower moving trucks are unfortunately frequent on the steeper grades of turnpikes and freeways. A large sign clearly visible over the top of a truck ahead—“this vehicle is moving slower than you think”—is that a good sign or bad?

The problem of reducing the frequency of accidents by means of one system or another naturally involves some knowledge of statistics on where and how often do these accidents occur. Unfortunately, on a national scale, precise statistics of this kind are not available. The legal requirements for highway accident reporting vary from one state to another and are quite dissimilar in different municipalities.

Thus national totals are arrived at through extrapolation of data from a limited number of sources, not all accurate, with the magnitude of the probable error unknown. All that is made clear by these estimates is that the national problem is of calamitous proportions.

While the problem of compiling systematically precise and reliable national highway accident statistics is one of frustrating complexity, no such difficulty exists in the case of state turnpikes and those new Interstate freeways where adequate accident records can and are being kept rigorously accurate.



These data help to focus the attention on the particular sections of the limited access roads where accidents are consistently more frequent than the average on the rest of their mileage. Such "accident prone" sections on high speed rural highways are the most logical locations for an immediate installation of a sudden danger warnings' system such as KS.

Using the available contractors' estimates for costs of KS installation, and the yardsticks provided by the National Safety Council to evaluate the costs of accidents, the period required to amortize any proposed investment in KS can be readily determined.

Mr. ROGERS of Texas. Mr. Moss.

Mr. Moss. Senator, I want to compliment you on your statement today, and on the role of leadership you have taken in this area. I know you are personally responsible for bringing about the disclosure of certain defects.

One of my automobiles has just been corrected after having been 15 months in my possession. It concerned a matter of faulty brakes. I didn't know about it. I didn't get notification until I made an inquiry as a result of the disclosures before the Senate committee.

I will submit that as the buyer of an automobile, however carefully I might drive, or how badly I might drive, if those brakes failed because they were basically faulty, it would not have been my fault. Normally it would not have been my fault.

Senator RIBICOFF. That is correct.

Mr. Moss. So we have a right and a need to be concerned over the quality of the product placed in the hands of these drivers—good, bad, or indifferent.

In most accidents, getting into the large-scale, multiple accidents on the freeways of California, for example, they are involving several people. At least there are two or three persons involved, and one usually is at fault and one isn't, although on occasion both are at fault. We have to be concerned about the protection of the one who is not at fault, too, don't we?

Senator RIBICOFF. You are absolutely correct.

Mr. Moss. Improving the quality of his driver training will not prevent him from being the victim of an accident, but the environment in which he rides is a matter we can do something about and about which we should do something, without any loss of time.

Senator RIBICOFF. That is correct. I think you have hit upon the key in your statement, Congressman Moss. What we have to realize today, and this committee is playing its part in many fields, is that man lives in a very complex, complicated environment. Today, the whole problem is the field of environmental hazards.

The automobile is part of our environment, just as pesticides, foods, drugs, smog, water and air pollution. We have developed in our society a complete new concept. Now our problem is to worry not only about individual man, but man's relationship with this complex industrial society which has thrown up a series of problems that none of us ever anticipated in the past because we lived in a different kind of age, in a different kind of era.

The automobile has become part of us. It is unthinkable as to how an American society today could exist without an automobile. Since the automobile kills 50,000 people and injures 3½ million a year, and has some \$8 billion in property damage in money loss, we suddenly are faced with one of the basic problems of our society.

As legislators who are concerned with the problems, all the problems, of our society, now we look on this problem and its environment to see what we can do, and we try to focus on the whole thing.

I think you, in putting the question this way, have hit on a philosophical key to this, Congressman Moss, which is very important.

Mr. Moss. The matter of cost of safety is also one which we are going to pay one way or the other, because the failure to solve the problem and lessen the impact of the accidents, the economic impact, is going to result in such staggering costs for insurance that many drivers will not be able to meet them, isn't that correct?

Senator RIBICOFF. I know this: That the cost of casualty insurance keeps going up constantly. In many areas of this country they are so astronomical the average person does have a tough job meeting the cost of liability insurance on his car. Yet, coming from an insurance State, I have been told that there isn't a casualty company in America that makes any money on its underwriting. The only money they make is on investment. So they are taking terrific losses in the casualty field, with the constant increase of casualty rates.

As long as the American people are very prosperous and can earn large sums of money to keep paying the price of these casualty premiums, all well and good; but it is now reaching the state of being a great burden.

I think that this, too, is important. You have the problem of cost here, too, and what you do with the extra amount of money that you might pay for safety equipment perhaps having a lot to do with keeping the skyrocketing of casualty costs down.

Mr. Moss. Also, there is the fact that the cost might prevent the lay person of modest means from buying coverage and as a result, when they are involved in an accident, the victim is really victimized.

Senator RIBICOFF. He certainly is.

Mr. Moss. Frequently these persons also are driving some of the worst junk on the highways, traded in commerce time and time again, and not inspected then even to insure the most basic type of safety standard—that the brakes work, or that the steering mechanism is sufficiently free of play and is reasonably safe. You have no standards at this point.

Don't you think here, as a matter of minimum requirements in this legislation, in the changing of ownership on any vehicle, at least the basic features required for safety work and work properly?

Senator RIBICOFF. I would even go beyond that. I think you are absolutely correct. But I think that by having an inspection with cooperation of the State with Federal performance standards, you will find many jalopies will be ruled off the road. They should be ruled off the road. There are a lot of heaps on the roads of America today that are not only a hazard to the person driving them, but a grave hazard to the innocent people who will get involved with that car.

There is no question that when that car is sold, it is the least you could have when there is the sale that that car has passed certain performance inspection standards and there should be a sticker when it goes to a new buyer. Again, if this is what Paul is talking about, I think this is something that should be worked into this bill.



Mr. MOSS. I will yield to my friend from Maryland.

Mr. FRIEDEL. Has any insurance company asked to be heard on traffic safety?

The CHAIRMAN. I would have to ask the clerk.

Mr. MACKAY. They have testified, the institute has.

Senator RIBICOFF. I have a statement here that the institute has filed with you supporting this bill. I have it before me. But may I say the insurance industry has not been quick to come to testify at these hearings. They have been reluctant dragons. It is unfortunate, because there is a lot that they could have added.

Mr. FRIEDEL. Isn't it strange that they have not asked to be heard? They have so much at stake.

Senator RIBICOFF. This is the statement of Russell I. Brown, Insurance Institute for Highway Safety. That is before your committee, dated April 27. I don't know whether he testified or just filed a statement.

Mr. MACKAY. He testified.

Senator RIBICOFF. I think the insurance industry——

Mr. FRIEDEL. My question was: Has any insurance company, not the institute, testified? Has any insurance company asked to be heard on traffic safety?

Mr. MACKAY. Not individually.

Mr. FRIEDEL. It is strange that they haven't.

Senator RIBICOFF. Mr. Brown's statement on page 7 says:

It is our position that the data compiled by recognized research institutions, although not conclusive, indicates an improved vehicle would help reduce the number of traffic accidents, but more particularly, the severity of those that do occur. We believe that Title I is a constructive proposal to accomplish this.

Apparently Mr. Brown has testified before this committee.

Mr. MOSS. I have a couple more points, Mr. Chairman.

In the matter of used cars, you stated that you felt Federal performance standards were desirable with State enforcement of the standards.

Senator RIBICOFF. On inspection; yes, sir.

Mr. MOSS. In the field of driver licensing and the licensing practices of the States, which run the broad spectrum, should there be some Federal minimum standards to be utilized by the States in the licensing of drivers?

Senator RIBICOFF. My feeling is this: That I don't want to see a person have a Federal license. I think the Federal agency should recommend minimum standards. I would say that if a State does not want to comply with the minimum standards, that that State's drivers should drive in their own State. But if the State doesn't have minimum standards, they shouldn't come into your State if they are not qualified to drive. This is my own personal feeling.

Mr. MOSS. This legislation would call, then, for minimum standards for the licensing of drivers under the authority of the State.

Senator RIBICOFF. I would make this prediction from my experience in all branches of government, that with public opinion having been aroused the way it has been, with the measure that I respectfully believe the Senate Commerce Committee, the Senate Public Works Committee, and the House respective committees, with the President's backing, an important, major piece of legislation will pass.

I have found, traveling all over the United States, that this is of such vital concern to every State, and there is not a State that I have not been in that when you have a press conference or newspapermen come to see you, the first thing they ask you about is the problem of safety. People are getting killed in all the States of the Union. People are worried. Once you have a Federal standard established, you will see a very steep upgrading of State standards.

You would have the momentum; there would be the desire. As a matter of fact, then it would become good politics for a good Governor or a legislature to have good standards to comply with the Federal. I think what you would be doing, Congressman Moss, is by Federal action you would be upgrading even State standards in every one of these fields.

Mr. MOSS. Senator, again I want to thank you for your statement and the fine work you have been doing in this field.

Senator RIBICOFF. Thank you.

The CHAIRMAN. Mr. Cunningham.

Mr. CUNNINGHAM. Senator Ribicoff, I very much appreciate your testimony of today. We have had a lot of inexperienced witnesses up here who don't really know anything about this subject. I consider you an expert witness. Maybe we can get down to some brass tacks.

I was interested in various comments you made. I was interested in the fact that you don't blame all of this on the automobile.

Senator RIBICOFF. That is correct.

Mr. CUNNINGHAM. That is because there are no figures to prove that.

I have been in this work professionally for 12 years. I think I know a little something about it. I know the overwhelming injuries are due to factors other than car design. I am sure from the tremendous record you have made, you would agree with that.

Senator RIBICOFF. Let me say this: There are two things we must keep in mind; that we are talking about two separate things. We are talking about the cause of accidents, and we are talking about the severity of the injuries as a result of the accidents.

I would say the cause of the accidents are due in the main to the individual and the road. I would say the severity of the injuries and the number of deaths to a large extent are due to the car.

Now, if you say to me, "Will you give me figures?" I will not, because I don't know them, and I have great respect for figures. I will not throw them around, Congressman Cunningham, unless I know. I must confess that we don't have accurate statistics to prove anything in this field in America today.

Mr. CUNNINGHAM. That is absolutely right; we do not have figures. There are some demagogues who want to pick on the big corporations as the major cause of the problem we have. I certainly believe that every safety device should be built into an automobile. We have had airplane accidents, and I believe you referred to them, and we ground the aircraft, don't we?

Senator RIBICOFF. We sure do.

Mr. CUNNINGHAM. So it isn't confined just to the automobiles.

Senator RIBICOFF. No.

Mr. CUNNINGHAM. It is not confined to railroad trains. I want to emphasize again that there are no figures that we can rely upon that some people keep saying are responsible for these accidents.



Senator RIBICOFF. Congressman Moss is not here, but he made a point about his car being called back. I have a letter that I just received from a professor of education at Syracuse University.

On April 13, 1966, I purchased an X car—in fairness—

and between that date and April 23rd I drove the car approximately 500 miles. Some of these miles were at fairly high speed. On April 23rd I received a telegram as follows:

"Blank Corporation has advised us to recall your new 1966 Blank car for modification change. You are instructed not to drive this car until further notice. We will contact you when modification parts arrive. Thank you for your cooperation."

The dealer from whom I purchased the car called me to make sure that I understood the significance of the telegram and emphasized that I should not drive the car under any circumstances until the safety modification was completed.

You see, there are times when you may have something so basically wrong with the car that it would be dangerous. In other words, when Congressman Moss talked about his car with a brake failure, then, of course, if there had been an accident due to brake failure, you couldn't say that was due to Congressman Moss. That was due to a basic defect in the car.

Mr. CUNNINGHAM. That would not be entirely due to the design. I think it might be due to the workmanship.

I think, Mr. Chairman, we ought to have Walter Reuther or some person representing him come down and tell us about that, to give their testimony. I want expert witnesses. I am rather disturbed about the inexperienced people that have been around here testifying.

In my opinion, Senator and there is no doubt you are an expert witness.

In this magazine I have it says Connecticut ranks No. 1 in safety per 100 million vehicle miles of traffic.

We all drive the same automobiles, don't we, throughout the United States?

Senator RIBICOFF. I would say generally they average out across the whole country.

Mr. CUNNINGHAM. Why is Connecticut doing such a good job and South Carolina is way down at the bottom? There must be something different than car design.

Senator RIBICOFF. Let me say this: that I think Connecticut faced the question of enforcement, driver education, driver training, roads. That has much to do with it. It is a different type of State. I think the death rate is usually lower in urban areas than in rural areas, as a general proposition.

Mr. CUNNINGHAM. But you are going back to the fundamental three E's, are you not—education, traffic engineering, and enforcement?

Senator RIBICOFF. I am going back to that, but I have added one since I first got into this in 1955, and that is the automobile, because I have learned something, too, Congressman Cunningham, that I didn't have in 1955.

Mr. CUNNINGHAM. We all want a safe automobile, but in all the work I have been involved in in this field we have gone on the three E's. I am sure you are familiar with them.

Senator RIBICOFF. I certainly am, because I have made a lot of speeches in my day on it. But now the speeches I would make and my testimony would add the automobile. I have more knowledge today than I did 10 years ago. We will add one more E and call it "equipment."

Mr. CUNNINGHAM. The fact that you have given more attention to the three E's certainly puts you as No. 1 among the States, doesn't it?

Senator RIBICOFF. Let me say this: we could still do better. We have had bad years in Connecticut in the past few years, and, true, our death rate has gone up. We have had a lot of accidents and people injured, but my feeling is that if we had more safety equipment in cars there would have been fewer deaths, and there would have been fewer severe injuries.

So the point I make here is that you still should not be satisfied that if our rate is one-half of that of South Carolina, that doesn't mean the people of Connecticut should be satisfied because they are killing on the average one-half of those as the people of South Carolina.

People ask me how I got interested in this. I got interested because of headlines that Congressman Friedel read out of a Baltimore paper. Sitting there at Christmastime in the Governor's office in 1955, I picked up, day in and day out, newspapers with front page headlines such as Congressman Friedel just read to us at the beginning of this meeting.

It made me think "Does this have to be this way or is there something we can do about it?" Out came our program. I maintained my interest in this for the past 10 years, and being a Senator, I felt there could be an national program. I felt that the States cannot do the job. They have tried to do the job, but they cannot do it by themselves. The job is so big, the problem is so vast, it has become a national tragedy.

Any matter that is of such national consequence and national tragedy, I think, brings forth a Federal role to be played in it.

Mr. CUNNINGHAM. I don't dispute that, but cancer is a Federal tragedy. At its current rate, it eventually will strike 49 million Americans now living. Last year alone an estimated 295,000 Americans died of cancer.

Senator RIBICOFF. I think we spend here in Government funds, forgetting private funds, about \$100 million for cancer research. Last year the Federal Government spent \$5 million in all phases of traffic safety.

So basically, you see that we have been concerned with cancer as a national problem, which we should be concerned about, but may I say as a Federal Government we have been callous and indifferent to highway accidents.

It isn't just a question of the number of people killed, but the number of injuries. When you consider that when you have cancer you



die, or you might be partially killed, in addition, you figure there are 3½ million people injured, and an \$8 billion property loss, you can see the extent of it.

As I say, we have been indifferent, Congressman Cunningham.

Mr. CUNNINGHAM. What worries me is the fact that we are going to pass a law, and all of the voluntary organizations have been doing a terrific job, and it will say that the Federal Government will take care of this. I think that is what will happen. I will make the flat prediction that if the present bill is passed and signed into law, and I know about your amendments, but say this bill is passed and signed into law, people are going to say, "OK, the Federal Government is going to take care of it."

I make the flat prediction that within 10 years, the fatality and injury rate will double or maybe triple because people are going to say, "We have no more to do with it."

You mentioned also the fine cooperation you got from newspapers, radio, and television.

Senator RIBICOFF. That is correct.

Mr. CUNNINGHAM. That is very important. We have it in Omaha, where I come from. Unfortunately, the dailies here in Washington haven't done that type of job. They just haven't put any traffic safety campaign on. It is unfortunate. I think that is the reason we have so many traffic deaths in this area. Education, as you well know, is very important in the solution of this problem.

Mr. FRIEDEL. Senator, I would like to make one correction. The article that I had was from a Washington paper, not from Baltimore.

Mr. CUNNINGHAM. Senator, I took these figures out of a book that was given to us the other day from the American Trial Lawyers Association where they rated your State No. 1.

I made an error in commenting on that at that time. I wondered if they represented the insurance companies. I have learned since that some lawyers want to put the burden on the automobile companies so that when they have a case they have a better chance of getting a better settlement for their client.

Senator, I note in Newsweek of March 21 it states:

At the request of Senator Ribicoff, Chairman of the Safety Subcommittee, the FBI launched an investigation. Ribicoff also invited Roach, Gillin, and Nader to a hearing on March 22d.

Has anything come of that?

Senator RIBICOFF. Well, the hearing is history now. As you know, basically we had the hearing with Gillin, Roach, and Nader before our committee, which was reported in all the press. The FBI did not send us a report, as far as I was concerned. I felt that the hearing spoke for itself and made clear what had taken place between General Motors and Nader.

I would say this: I don't hold any brief one way or another for the American Trial Lawyers Association. I happen to know many lawyers who are members of that association and they are reputable, competent, well respected lawyers in their community.

Mr. CUNNINGHAM. They are not part of the American Bar Association, are they?

Senator RIBICOFF. I would say many members are also members of the American Bar Association. I would say most of them, I think, are probably plaintiffs' lawyers, I would guess.

Mr. CUNNINGHAM. From your work in this field, you know the tremendous job that the Junior Bar Division of ABA has done in trying to get better enforcement in the courts. You are aware of that?

Senator RIBICOFF. Yes, I am. I know that the American Bar Association has been vitally interested. I know during my term as Governor they used to consult with me very frequently and try to get uniformity and enforcement all over the country, to upgrade the judicial process in the no-fix proposal. I know they have spent a lot of time in this field.

Mr. CUNNINGHAM. Senator, the bells have rung and we have a quorum call. I will conclude by saying again that in my opinion you are an expert witness. The record in your State proves it. If we had more men like you around giving us the facts and not trying to get headlines, I think we could make some real progress in this field.

Senator RIBICOFF. Thank you, Mr. Cunningham.

The CHAIRMAN. The committee will adjourn until 2 o'clock, but I would like to ask you, Senator, it is your day, and I know you are a legislator with responsibilities, if you could return at that time.

Senator RIBICOFF. The problem I have is that the Democratic Senators have a caucus at 2 o'clock. I would like to oblige. I would just as soon, if it is all right, stay here until 2 o'clock if there are more questions that the members would like to ask.

The CHAIRMAN. Would it be the wish of this committee, after they have answered this quorum call, to come back to try to accommodate Senator Ribicoff? He has other obligations, the same as you and I.

If this be the wish of the committee, we will proceed in that order.

All right, we will reassemble, if I can get permission—and I think we can have permission—

Mr. CUNNINGHAM. Mr. Chairman, may I ask unanimous consent to put two very short articles into the record from "Car Life"?

The CHAIRMAN. That is the national magazine?

Yes, without objection.

We will resume at 1 o'clock, or maybe a little earlier, Senator.

(The articles referred to follow:)

[From Car Life magazine, Apr. 26, 1966]

"Mass hysteria" is being whipped up by self-appointed "safety inquisitors," according to the editors of a leading magazine for automobile consumers and enthusiasts.

In a special editorial in the latest issue (May), Car Life staff members declare that Congressional and state-level legislators are mis-directing an emotional barrage in berating American cars as unsafe.

"As is usual with mass hallucination, the underlying cause is completely obscured in the cloud of accusation," observes the magazine. "That Detroit's cars



are less than perfect," the editors add, "does not mean they are less than safe. They still can be only as safe as the individual driver makes them."

The safety crusade should be directed toward the basic problem instead of the secondary one, the editors write. "Attention to driver education and licensing standards would be far more in the public interest."

Licensing which fails to certify driving skill along with training and testing which ignore emergency situations are deplored by Car Life. The authoritative magazine has for many years advocated "tough and meaningful" licensing of drivers.

---

[Reprinted from Car Life, May 1966]

#### EDITORIAL: SAFETY HYSTERIA

THE NATION'S legislative leaders are whipping up a magnificent case of mass hysteria: The automobile as currently designed and manufactured is patently unsafe. "Safety," these legislators would lead us to believe, can only be achieved after the expenditure of untold millions of tax dollars. "Safety," they say, means re-designing the car to make it crash-proof at any speed. As is usual with mass hallucination, the underlying cause is completely obscured in the cloud of accusation.

That domestic-built automobiles have their drawbacks is evident in the reading of most automotive magazines. The knowledgeable automotive press does a continuous and thorough job of exploring the mechanical, economic and sociological reasons for these drawbacks. That Detroit's cars are less than perfect, though, does not mean they are less than safe. They still can only be as safe as the individual driver makes them.

The safety inquisitors are asking for a veritable Sherman tank of an automobile, an absolutely crashworthy vehicle in which drivers could play "Dodge-Em" on the expressways. On the other hand, what the qualified observers ask are cars capable of complete controllability, cars that can give effective response to evasive action. That Detroit can make either type is a foregone conclusion. Review the Chrysler-built M-60 battle tank for the former, and the Chevrolet Corvette Sting Ray for the latter classification.

That automotive traffic fatalities numbered 49,000 last year and probably will number more in '66 is deplorable. It is a tragic commentary on the quality of the drivers using the public roadway. And, the growing death count reflects the heavily increasing usage of the highways. What most self-appointed crusaders do not consider is that the death rate per mile traveled, for cars in use, has actually declined in recent years. This somewhat discredits their "lack of safety in design" campaign, of course.

Any fatalities in public transportation are a matter of public concern, and perhaps the agitation by notoriety-seeking public figures ultimately will have a beneficial effect. We at Car Life wish they would concentrate their efforts on the basic problem rather than the secondary one. Attention to driver education and licensing standards would be far more in the public interest.

How many of today's licensed drivers have had 6 hours of behind-the-wheel instruction and 30 hours of attendant classroom study? These are the minimum acceptable to driver training authorities, yet no state requires such expenditure of time or money to ready the applicant for his public responsibilities. Driver tests in many states are hardly more than a brief formality. In none do they realistically reflect the applicants' ability to meet and survive an emergency situation. Why, then, aren't these self-possessed safety crusaders working toward establishment of a uniform driver licensing code?

So long as driver licensing is used primarily as a means of providing check-cashing identification rather than a certification of automotive skill; so long as aid-to-the-blind recipients in one state can get driver licenses valid in any other state; so long as the few driving tests extant consist of a ride around the block; that is how long we will have increasing automotive fatalities.

Any automobile can be safe—as long as its driver knows and understands its limitations, and does not exceed them.—*The Editors*

(A short recess was taken.)

The CHAIRMAN. The committee will come to order.

We are very sorry about this procedure, but as you know, in all legislative bodies we have to do the very best we can.

Senator RIBICOFF. I understand, Mr. Chairman.

The CHAIRMAN. You have been very patient, Senator, and you have done an excellent job in answering questions and giving your views.

At this time I will call on Mr. Rogers.

Mr. ROGERS of Florida. Thank you, Mr. Chairman.

Senator, I, too, want to express my appreciation for your being here and giving testimony and understanding our situation, too, being kind enough to interrupt your schedule to allow us to pursue some of the questions on this legislation, which is so important.

I am particularly impressed with what you have done in bringing it to the attention of the American people.

First of all, I wanted to get into this problem of what I think is 90 percent of the problem. I realize the need to do something on the 10 percent of the problem, which is the new car situation.

Senator RIBICOFF. May I point out that with the passing of time, with each passing year, the 10 percent increases. The average age of the automobiles on the roads of this country is 6 years. With each passing year, you will catch up, and eventually it will solve the whole problem. But I understand the present problem.

Mr. ROGERS of Florida. I would agree with you that the standards set for that year would be helpful, but, of course, then the car becomes a used car. The statistics show that 50 percent of all of the cars on the roads have at least one defect. So even though we may have a new car this year, next year it has a defect. When it is sold, I am sure it would have a defect. In fact, a recent study which has just been made shows that 71 percent of the cars had at least one mechanical defect.

If we do something to new cars, that doesn't solve the problem by any means, because it soon becomes a used car, as you know. But we both recognize this problem.

To start and do something about raising the standards is fine, but I was encouraged to hear you say that you thought, too, to bring cars that will be resold as used cars to the standard at which they should be as of the time they were made certainly should be a minimum. This would be Federal standards and enforced with the cooperation of the States.

Would you share that thought?

Senator RIBICOFF. Yes, I commend you, Paul, on this, because I think you have seen something that none of the others of us have seen. The only thing that I fear is that you don't try to place in an amendment the bringing up of all the old cars to the standards of the new cars, which would be a practical impossibility.

There are a number of things that we can achieve. Once the standards are established and the car is sold as original equipment with those standards, as the car is resold it should continue to have at least those standards.

Mr. ROGERS of Florida. That would be my understanding, too.

Senator RIBICOFF. That is fine. Therefore, you make sure that they don't downgrade, don't remove, and that the standards stay as the same equipment, and when a used car dealer sells a car to Mr. Brown, it has the original equipment or the equivalent on it.

Mr. ROGERS of Florida. At least we know that the brakes it had on it are in working condition, the lights work and work properly, and items of that type.



Senator RIBICOFF. Not only would you be doing to safety field a great service, but, frankly, I think you would be doing a great service to the buyer of used cars who often doesn't know what he is getting. I think you would be doing a great service to a vast group of consumers in America. So it has a double feature which I like.

Mr. ROGERS of Florida. And also, Senator, I think it might be possible, once we get the insurance companies in to discuss this with them, that they may be able to give a reduction in policy cost if you had a car that has a certain standard. For instance, as I understand it, when you have a person who has had driver education, in some policies they can get a 10-percent reduction in their insurance policy. So the cost to the person buying the car might, in effect, be a savings to him to have this sort of an amendment.

Senator RIBICOFF. The second one, of course, comes to the mass of old cars that will not have the standard equipment that we will have as Federal standards. There you are going to have to have that handled by the inspection system to make sure that those cars don't have basic defects as they are. This will be with, I would say, an inspection that should be at least twice a year. You ought to have semiannual inspections. This would be set up in cooperation, as I see it, between the Federal Government and the State, with performance standards.

If the Federal Government would say, "You ought to check the lights, the clutch, certain basic things," and then, "If you would go along with these performance standards, we will contribute one-half of the inspection system," the State of Florida today would establish them, and the State of Connecticut, and we would get a Federal grant for one-half of the cost. We would set up our own system.

I don't want the Federal Government to be operating garages, and I don't want the Federal Government to have employees on the roads to inspect. Let the State decide how it wants to do it.

Mr. ROGERS of Florida. But I think on requiring the certificate of safety on the used cars being sold, it will bring them to the standards and will get immediately to the problem of at least the great number of used cars on the roads today.

Senator RIBICOFF. That is right.

Mr. ROGERS of Florida. I am encouraged. I would hope that you could help us with that, too.

Senator RIBICOFF. I think you have made a valuable contribution here. When I first read about your proposal, I was somewhat concerned because I didn't quite understand what you were driving at. Now that I know what you are driving at, I think we should try to work this out.

Mr. ROGERS of Florida. Now I have just one or two other questions before I conclude.

I am concerned, too, about how the standards are going to be set. I personally think, and I would like to get your reaction, that we should have a Presidential Commission appointed to advise the Secretary, where you get all parties of interest represented on the Commission, where they are not specifically controlled by one Secretary.

One of the reasons I say this, and I think it should be mandatory that these regulations be put in, is because, for instance, when we had

our hearings, as you may recall, before the Roberts subcommittee, of which I was a member, back in 1962, we were trying at that time to get a National Accident Prevention Center where they could do research and set some standards of safety.

I might say you were one of the few Secretaries who approved that, as I recall, in your testimony when you were here. But the answer from the Commerce Department saying they did not favor that legislation, an Accident Prevention Center, was that the President had issued by Executive order an order setting up an interdepartmental Highway Safety Board composed of the Secretaries of Commerce, Defense, Labor, HEW, the Postmaster General, the Chairman of the Interstate Commerce Commission, and the Administrator for GSA, and the functions and duties of the Board are to coordinate traffic safety aspects and programs carried on within the departments and agencies and also having responsibility for traffic safety, national associations, motor vehicles and others having an interest in safety standards, enforcement practices, accident reports, traffic engineering, and safety education.

That was set up in 1960, chaired by the Secretary of Commerce. When these hearings were held in 1962, they had never held a meeting.

Senator RIBICOFF. I don't think they have held many since. I think it was, again, a shadow operation with nobody caring and with the diffusion of authority. When you diffuse authority, nothing is accomplished.

Mr. ROGERS of Florida. That is correct. This is why I think so. We have seen the States have not been able to act appropriately, as you have brought out. We have seen the executive department has not. It is now time for the Congress to go in and say what we want done and how we want it done.

I think if we would have a Presidentially appointed commission to advise the Secretary, the Secretary would still have the authority. The commission would advise him on the safety standards. I think this would be in line with the responsibility of the Congress. I wondered what your reaction would be to that.

Senator RIBICOFF. Again, I give you full credit because I hadn't thought of that. While I wouldn't put it in the bill, if it were in the bill I would certainly support the bill with it in there. I think what it has positively to recommend it would be the feeling along the question raised, I believe, by Mr. Springer, that there was the question of arbitrariness involved.

I am sure the President would appoint people of such caliber so as to assure scientific, dispassionate competence. It is important enough that if this committee saw fit in its wisdom to put it in, it would have my support and I would vote for it.

Mr. ROGERS of Florida. I noticed back in 1959 in our hearings before, it was stated that we spent at that time \$500,000 per death in aviation death cases, and we were spending \$5 per case in an automobile accident; that is, in research.

I think this points up the fact that we have not done an adequate job and that this legislation will help us to begin to meet this problem, as you say, where we have 50,000 deaths and 3½ to 4 million people injured. If we had this in Vietnam, this whole Nation would



be in a state of emergency, and we have a state of emergency in this field. This is the first step. I commend you for your leadership.

Senator RIBICOFF. Thank you very much, Paul.

The CHAIRMAN. Mr. Mackay.

Mr. MACKAY. Thank you, Mr. Chairman.

Senator Ribicoff, I think you will recall I came to your office last October to express my appreciation for your leadership in this field. It is astounding to see how far this issue has moved in this short period of time.

We are all very grateful to you for it. I appreciate the help in the Senate that you have given us in getting a grasp of this matter.

I have a workbook here which contains 28 questions which I shall not undertake to go through, but I would like you and your staff to look through it and see if you can comment on the points raised.

Senator RIBICOFF. I will.

(The reply to Congressman Mackay's questions will be found in the committee files.)

Mr. MACKAY. I have voiced the objection to the President's bill that it is not commensurate with the President's own stated assessment of the size of the problem. He has said this is second only to national defense. We are spending over \$1 billion a week on defense, yet we spend less than \$10 million on research for the whole traffic safety field.

In titles II and III they authorize certain things to be done. I asked Secretary Connor, when he was here, if we couldn't put a little stronger language than that.

I want to ask you, as a former Cabinet member, whether you consider the word "authorize" in legislation as really directing that you do something.

Senator RIBICOFF. I would say when you say "authorize" instead of "direct," if there is a question of priorities, whatever is directed gets better priority than what is authorized.

Mr. MACKAY. That is my feeling about it. For example, the law says he is authorized to gather data. There have been some pretty slanderous and libelous charges made in this matter so far which could not be supported by what you referred to a while ago as really hard statistics. I think there have been some very unfair things said.

Senator RIBICOFF. And I have been very careful to try to be as moderate and as judicious in every statement I have made just because of that, Congressman Mackay.

Mr. MACKAY. Would you agree, then, that the Congress should make it explicit that there shall be certain safety standards?

Senator RIBICOFF. I would go along with you on that, sir.

Mr. MACKAY. The language here, again, is very tentative in the President's bill. It says if the Secretary finds certain things, and it leaves it with a lot of latitude which, it seems to me, would put some great pressures on the Cabinet members.

Senator RIBICOFF. That is right.

Mr. MACKAY. Second, would you agree that there should be mandatory research and testing of all elements in the traffic accident phenomenon? As I read again the administration bill, it tends to suggest that testing and research has to do with the physical elements rather than all of the elements.

Would you agree with me on that?

Senator RIBICOFF. I think so. I think you have a lot of psychological factors in here. There will be a lot of things that you will have to test that just have nothing to do with hard facts.

Mr. MACKAY. I have been handicapped through lack of experience in observing the Federal Government at work, but I believe you can answer this question: I understand as a lawyer that you must vest certain powers in the Cabinet member, that you don't vest them down the line in some lesser person. You know, I have argued that we need an FAA-type agency with an Administrator to personify this concern in the Government.

It is just a joke when you come to this town and try to find out who has any responsibility for traffic safety. You have a voluntary department over in HEW that was set up without any congressional direction. You have the Bureau of Public Roads which really doesn't have any congressional mandate to handle safety.

I have been arguing that the Congress should not try to nail down furniture or fix the walls in a particular place, but should say that there should be a traffic safety agency charged with specific responsibility. Mr. Boyd said that this is not a good idea because it does not permit flexibility of administration.

Senator RIBICOFF. I would say that if you give this to the Secretary, that doesn't mean the Secretary is going to do it all himself. It means he has a responsibility and he will certainly delegate it to someone in his department who will carry it out. But I think, too, I agree with you that the Secretary should be the person with the responsibility so he will pay attention to it.

Mr. MACKAY. Let me illustrate it with one specific illustration. I read your article "Harmony on the Highways," and I think it was factual and was splendid. The Georgia Legislature has just failed to take any action on 40 bills this year. The Maryland Legislature had, I think, 69 traffic bills; most of them languished. My State senator, who is the dean of the Emory University Law School and a very smart man, said:

I am in complete accord with Senator Ribicoff's idea that we need uniform legal environment in this country, but I don't know where to turn to find out what is uniform.

The case for the Administrator, it seems to me, is that the Congress designates this man, just as we have in the case of the FAA Administrator, who can speak for the Federal Government on traffic safety and provide national leadership. A Cabinet member cannot take time to go before State legislatures.

Senator RIBICOFF. No, but I think what he would do is, he would have a department, and if the question came for consultation, if someone was needed, he could send an Assistant Secretary who could speak for him.

Mr. MACKAY. I don't think the public understands this. The President said 2 or 3 months ago that he was issuing an administrative order; he was going to tighten this up. I judged he was going to do it the next day. Have you seen any beefing up of the safety functions of the Federal Government?

Senator RIBICOFF. No, I haven't.



Mr. MACKAY. One final question, Senator. The traffic, we know, is everything on the streets, and the administration says leave the trucks out. Mr. Hoffa came in here and certainly commanded the respect of this committee as far as his knowledge of safety is concerned and he recommended inclusion of trucks. If you leave the trucks out of the law, don't you continue this diffusion?

Senator RIBICOFF. Yes. I would say once you do it, you ought to bring the trucks in. If you establish a Department of Transportation, I would say under these circumstances, as I contemplate the bill, and I am on the committee that is hearing it, I would contemplate that the whole traffic safety field would be in the Secretary of Transportation, including trucks.

This is my interpretation. If it isn't so, this is how I would like it. But I would say that there are a lot of trucks that don't come within the jurisdiction of the ICC. I don't know what the figures are, but the ICC only has jurisdiction of a certain number of trucks.

Mr. MACKAY. That is true. Mr. Hoffa made that point.

Senator RIBICOFF. Do you remember the figure that he gave? Is the gentleman here from the ICC?

How many trucks are there on the roads of the United States?

Mr. GAVIN W. O'BRIEN (legislative attorney, Interstate Commerce Commission). Approximately 15 million, and we have safety regulation over approximately 2 million.

Senator RIBICOFF. Under the circumstances, you make a fine point.

Mr. MACKAY. Then shouldn't we include trucks?

Senator RIBICOFF. I think once you have the Federal Government with a program invested in the Secretary, under those circumstances I see no place for the GSA to set separate standards because to me it is outrageous to think that a safety standard for a Federal employee should not apply just as well to Mr. John Q. Public, a citizen. He is entitled to the same safety features. I think at that time the standards set should be overall standards for all automobiles.

I think the point made for trucks, especially in view of the figure that 13 million out of the 15 million are outside of the jurisdiction of the ICC, makes it very important.

Mr. MACKAY. I would like to renew my pledge made to you last October, Senator.

Senator RIBICOFF. Thank you very much.

I might say you have done excellent work. May I take this opportunity to compliment you for the many fine things you have said about me. I am very appreciative.

Mr. MACKAY. That is all.

The CHAIRMAN. Mr. Farnsley.

Mr. FARNSLEY. Mr. Ribicoff, we are all grateful to you. I know how hard you have worked. I tried to do in Louisville some of the things you did as Governor for safety. We got many results with one-way streets and getting our lighting up to standards.

Have you studied that?

Senator RIBICOFF. No, I haven't. But let me say that there is no question but what well-lighted roads will cut down the accident rate. When we built the Connecticut Thruway, which was a major road, we put almost all of it as well lighted. I think as a matter of policy on roads we paid a lot of attention to lighting.

Basically, when you deal with streets you are basically dealing with your municipal function. In the cities where you have most of the streets, as against the States, or the Interstate Highway System, this would be within the city jurisdiction.

I think most of the cities in Connecticut have streets that are very well lit. When you have small rural towns it is another problem and they vary. If you have a country road with very few houses, they are not as well lit, or if you have a small town which is fairly well built up, you will find that the householders want them well lit for protection and other reasons.

But there is no question but what lighting plays a very important role in the matter of traffic safety.

Mr. FARNSLEY. I don't want to take any pressure off of getting safer vehicles or safer drivers, but is it possible that we in the Federal Government don't go into equity with clean hands, and that our highways are nowhere near as safe as they could be? I feel from all of the studies I have had made, one-way streets or highways are much safer, or with divided lanes as a minimum. And when they are well lit they are safer still.

Is it perhaps that we are not putting enough pressure on our own people to do these things?

Senator RIBICOFF. From my own experience, and I can only talk about the roads I know, and those are those in Connecticut that I helped build and plan when I was Governor in cooperation with the Federal Government, I think the Federal standards have been pretty high so far as the roads I can speak of personally. Of course, I would say every day some of the worst roads or the unsafest roads are those around this city. I come in and out on roads that are unimaginable, I think, in Washington, and the surrounding areas, Maryland and Virginia, in the jurisdiction of the National Park Service. They are something to be deeply concerned with.

I would say, too, that what surprises me traveling around the roads of Washington is I have never know anywhere in the United States the length of time it takes to make a minor repair. This is a nuisance, and this causes accidents. This causes confusion, where people get impatient with delays. Whoever is responsible to build roads in the city of Washington and environs ought to do something about it. The National Capital should be a leader instead of a foot dragger. There is no question about that.

Mr. FARNSLEY. I appreciate what you tell me. It just worries me terribly that they are spending a lot of their money for new street lights, lights that were designed in 1907, but they are proud of the fact that it is a 1923 model. I am for ornamental lights and those are beautiful.

When I tell my traffic engineer about them, he just laughs. He said the lights of 10 years ago will give 10 times as much light on the street for the same money, but the brandnew ones will give 20 times.

Senator RIBICOFF. There have been great advances in the whole lighting field where at the same cost you do get much more light, with the development of modern lighting and modern-type lamps.

There is no question but that lighting cuts down accidents.

Mr. FARNSLEY. Thank you very much, Senator.



The CHAIRMAN. Senator Ribicoff, I would like to thank you for the committee.

Senator RIBICOFF. I am delighted to be here.

The CHAIRMAN. Your testimony has been objective. I think you have answered questions very well. You have contributed much to the committee in its deliberations on the bill.

Senator RIBICOFF. Thank you very much.

May I compliment the committee. The questions and the points they raised have been very constructive, and I would say that if some of the suggestions that have been made will be translated into the legislation, I think you will have an improved bill and the House committee will be rendering a distinct service.

I have been very impressed with some of the points that I see germinating in the minds of some of the members. If you people here in the committee support it, I think you will have a good bill.

The CHAIRMAN. I can say when we get through we hope we will have a bill that will be constructive, that will be good, and that will take in most of these points or at least part of them.

We will spend as much time as it takes in executive session to try to get a good bill. You have contributed much to it.

Senator RIBICOFF. Thank you very much.

The CHAIRMAN. I would like to call on a colleague of ours at this time, the Honorable Seymour Halpern, Member of Congress from New York State.

#### STATEMENT OF HON. SEYMOUR HALPERN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

The CHAIRMAN. Congressman Halpern, we certainly appreciate your being with us today.

We know you have had vast experience in this field in the State of New York.

Mr. HALPERN. Thank you, Mr. Chairman. I must say I was much enlightened by the testimony and constructive and intelligent, most important, colloquy between the distinguished witness you heard this morning and this afternoon, and the exceptionally able points and views, questions and comments, made by the members of this committee.

Hence, I feel that the hours I spent listening were certainly well worth being here.

I do know we are on the second round of a quorum call. I wonder if we should proceed or recess.

The CHAIRMAN. If you would care to put this into the record and summarize it, we will be here until you get through.

Mr. HALPERN. Very well, Mr. Chairman. In view of the time factor I would just like to summarize. I do have a rather comprehensive, and I do hope constructive, presentation, which I would like to submit to the committee.

In substance, I agree with the objectives of your bill, Mr. Chairman, the administration's bill, but I also heartily concur with the perfecting and improving amendments suggested by the distinguished witness you heard this morning, Senator Ribicoff.

I have sponsored similar measures and I intensely concur with their objectives.

My interest in this subject, Mr. Chairman, is not only as a Member of the Congress where we are now commendably confronting this problem, but as one who worked for many years, as you stated, Mr. Chairman, on the State level in New York on the subject of highway safety.

For those years, as a New York State senator, I served as chairman of the New York State Joint Legislative Committee on Motor Vehicle Safety. I directed a recodification of New York's laws. We completely overhauled the rules of the road of New York, following the standards of the model uniform vehicle code, including the establishing for the first time in New York State, a vehicle inspection system and bringing to New York State an effective driver education program.

We have had remarkable success in cutting the accident rate in New York, and the statistics bear this out. But there is only so much, as was brought out here today so intelligently, that can be done on a State level.

If there ever is an interstate instrument, it is the motor vehicle. If there ever is Federal responsibility, it is in this field. Hence, I concur with the subject matter of the legislation before you. I agree with the basic purpose of the administration bill. In some areas it is weak and should be strengthened; in others I believe it can be improved. I agree with the strengthening and improving amendments discussed here at length by the Senator from Connecticut. I have introduced similar legislation. Unfortunately, time does not permit me to delve into it in detail. But my full statement which will follow covers many pertinent points which I trust the committee will consider.

If there are any questions that any member of this committee would like to direct to me, or if there is any further information that I can supply to the committee, I would welcome them, and if there isn't time to cover them all today, I would be pleased to appear again or to submit my opinions to your committee for your report.

I appreciate the opportunity to appear here even if my time is cut short by the ringing of the bells calling the Members of the House to the floor. I do not want to deter the members of this committee from returning to the House Chamber to answer to their name. We do have important legislation on the floor of the House.

I appreciate this opportunity to appear before you and I ask permission to submit my full views to the committee at this point.

The CHAIRMAN. It will be carried in the record in full.

(The statement referred to follows:)

STATEMENT OF HON. SEYMOUR HALPERN A REPRESENTATIVE IN  
CONGRESS FROM THE STATE OF NEW YORK

Mr. Chairman, I want to thank you and the Committee for affording me this opportunity to testify in behalf of comprehensive legislation on automobile and traffic safety.

I do not wish to take the time of the Committee in reviewing and comparing the various bills which have been introduced. Your membership and other legislative bodies, both there and in the Senate, have already devoted a great deal of effort toward this subject.

And so, with your permission, Mr. Chairman, I would simply like to make some observations and recommendations, trusting that this Committee will come forward in the final analysis with a workable and effective bill.



My first experience in this field came several years ago in the New York State Legislature, when I served as Chairman of the Joint Legislative Committee on Motor Vehicle Safety. We managed to overhaul the entire State code, correcting the many duplications and improving safety regulations. New York has been one of the most progressive States in this vital area. But there is a limit to what any one state can do.

Now, after many years of seeming indifference, automobile safety has become one of the most topical issues of the day. The Congress is primarily responsible for this awakening concern.

I recognize a very urgent Federal role in this field. The automobile is an interstate instrument; it is the only vehicle for which Federal regulations are lacking.

There are over 86 million cars on the road today; and they are being driven by more than 50 million licensed operators.

Nearly 48,000 people die every year in automobile accidents and the American Trial Lawyers Association estimates that without a comprehensive national safety effort, this figure will rise to 100,000 by 1975. And by 1975, the Automobile Safety Foundation declares that we may expect 125 million licensed drivers and 117 million vehicles in operation.

I am sure the Committee is well acquainted with these statistics. They indicate the seriousness of the problem which faces the country.

There is no single cause of automobile accidents. Moreover, Government cannot guarantee the driving habits of motorists. No matter what we are able to accomplish in superior vehicle design, in removing road obstructions, in standardizing traffic control from State to State, in educating the young driver, there will always be human error and carelessness which will result in major accidents.

However, I would suggest that this acknowledgment is largely irrelevant to our task. The question is not whether industry and Government have made considerable advances in the field, which is undoubtedly true; rather, the question is whether both industry and Governmental authorities are doing all that is possible now to ensure the safest possible vehicle and to instruct motorists on accident prevention.

Coincidentally, the question is not whether the buying public used safety waist belts only half the time, which the National Safety Council asserts; rather, the question is whether this proven safety device is installed, giving the driver the option. This is a feature requiring the participation of the operator; we cannot really order him to use it; but we can insist that it be made available.

An effective approach to the problem of traffic safety will depend on a mix of provisions because we are dealing with four principal components: the automobile, the road, the driver, and law enforcement.

Several weeks ago, I had the opportunity of appearing before the Public Works Committee, and there urged a Federal program of research on traffic safety and assistance to the states in operating improved driver education and vehicle inspection systems.

I am convinced that whatever legislation we adopt relative to automobile safety conditions, our objective cannot be fully realized without a comparable effort in the field of proper vehicle maintenance and driver education. This must supplement any demand that automobiles be equipped with up-to-date safety features.

Over 3 million youngsters reach the legal driving age each year. It is among younger drivers that the highest accident rate exists. But only about 30 of our State legislatures have appropriated special funds in support of high school driver education. Mr. Norman Key, Executive Secretary of the National Commission on Safety Education of the National Education Association, testified before the Senate Commerce Committee that 1½ million boys and girls are not receiving professional instruction, which represents exactly one-half of all beginners.

I also feel that we must encourage the adoption of improved motor vehicle inspection systems. About one-half of all cars on the road today are 6 years of age or older. Approximately 20 of our States, and the District of Columbia, operate inspection programs. The Congress can move to spur the inception and improvement of motor vehicle maintenance standards, which is crucial in the overall attack on the national accident rate.

On the question of automobile safety, it is now being asserted that the manufacturers have not recognized their responsibility toward the public. I do not wish to concern myself with these general charges, counter-charges, and insinuations. However, it does seem evident, from testimony heard here and before other Committees, that the industry has not played the innovative and substantive role which in essence we have a right to expect. For we are not technicians; the buying public remains unaware of the testing results, the surveys, the research and development processes which universities and auto manufacturers have engaged in. It has even been evident in testimony before the Subcommittee on Executive Reorganization of the Senate Government Operations Committee, that General Motors executives were ignorant of a Cornell University study which showed failings in safety door latches and hinges on GM products.

It was also discovered that early 1965 Chrysler models contained a defect, in that without a rewelding job on the steering gear support system, the gear could break loose. Dealerships were apparently notified; but the purchasers were not. The manufacturer considered the possibility of a breakdown so remote that the company took no steps to inform the owners. Yet one would think, from a safety point of view, that the steering gear support and its mooring is crucial to the car's proper functioning.

The industry, over the years, has independently made many advances in engineering safety features in automobile design. General Motors supported private research effort in 1964 to the tune of  $1\frac{1}{2}$  million dollars. The industry as a whole operates 8 proving grounds for structural testing, where 45,000 persons are employed. Collectively, the manufacturers continue to make large grants to universities for accident research. Mr. John S. Bugas, Chairman of the Safety Administrative Committee of the Automobile Manufacturers Association, testified that the \$11 $\frac{1}{2}$  million was earmarked in 1965 toward activities promoting safe driving. I have no reason to doubt these exertions.

However, with the knowledge presently available and the sustained development of new and better safety features, the question is whether the industry has used its key position to voluntarily ensure that owners are afforded the safest possible vehicle. I don't think the facts support such an assurance.

We have witnessed a succession of call-backs of defective automobiles. This must indicate that automobile executives were fully aware of failings and impairments but were unwilling to take corrective measures before the Congress brought the issue to public attention.

While the GSA prescribed 17 safety features for its purchases, the industry installed these only partially in commercially sold vehicles. In some cases these features were made standard in only the more expensive model cars.

We know, as industry spokesmen have acknowledged, that the universal incorporation of safety features has come to depend upon the extent of owner acceptance. This may take years to develop. By analogy, we cannot be kept waiting in order to construct the safest possible airplane.

Mandatory standards represent the only rational, workable approach if we are to synchronize regulations and ensure that safety becomes a compelling criterion. To avoid confusion and a multiplicity of State-imposed variations and to extend safety design to all passenger model cars, nothing less than national specifications will do the job.

I was pleased to note that Mr. Bugas, in his most recent pronouncement, has accepted at least the concept of mandatory Federal specifications for automobile safety design, although I must confess that the formula set forth as desirable here confuses me.

I would urge the Committee to report a bill requiring the Secretary of Commerce, or the envisaged Secretary of Transportation, to issue automobile safety standards within one year. The Secretary would have discretion to decide what advanced and proven features can today be effectively applied by manufacturers. I agree with Senator Ribicoff that the effective date for implementing these standards should be 180 days from the issuance of the required standards. I further agree that there be annual reports.

The U.S. Public Health Service Accident Prevention Bureau reports that 43% of the people who die in auto accidents succumb under survivable conditions. Roughly 35% of fatalities are due to ejection from the vehicle following impact. Further research efforts must show us ways to relocate dashboard items which today contribute harmfully to the repercussions of "internal collision" or "second collision," which occurs when the driver is thrust for-



ward following initial impact. Improved door latches and hinges must be found which limit their present tendency to fly open, causing ejection. In addition, I firmly support legislation to establish minimum tire safety standards and authorize the Government to conduct research into developing improved standards. I thoroughly agree with the proposal for adequate funds for research and development of the prototype car we have heard so much about and which was referred to by the distinguished previous witness.

Hence, effective legislation must provide for the continuing updating of standards as our knowledge of accident conditions and vehicle reaction expands.

Mr. Chairman, I have touched upon a very few aspects of this safety question which appear particularly relevant to me. This is an issue of supreme national importance. I have every confidence that this Committee, in surveying all aspects of this multifaceted problem, will recommend an effective measure which promises substantial success in curbing the death and accident potential on our roads and highways.

The CHAIRMAN. Are there any questions from members of the committee?

Mr. FARNSLEY. I would like to ask the chair to thank him for his appearance.

The CHAIRMAN. I certainly will.

I have watched with interest your interest in this whole program all morning. You have been very patient. I knew of your background in safety and the fact that you had spent 10 years in the State of New York, concerned with this very problem.

I will be interested in reading your full testimony.

Mr. HALPERN. I might add, Mr. Chairman, and I think this is of interest to the committee, that we made a comparative study of the motor vehicle laws of all the States of the United States. We analyzed each law on the same subject matter of each State. It is probably the most comprehensive comparison of the laws of each State, of every motor vehicle law enacted by the respective States.

With your permission, I would like to submit this comparative study to the committee.

I might also add that the glaring omissions in some of the laws, the ineffectiveness of some of the laws, the overlapping provisions, the antiquated provisions are almost unbelievable in some of the States of this Nation in this day and age.

I would like to submit that revealing document.

The CHAIRMAN. We would like to have it. I think it would be valuable to the committee when we start to mark up the bill to have that information.

Mr. HALPERN. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you again so much. We certainly appreciate your patience.

We will now hear from our colleague, the Honorable Frances Bolton. Mrs. Bolton, you may proceed as you wish.

#### STATEMENT OF HON. FRANCES P. BOLTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OHIO

Mrs. BOLTON. Mr. Chairman, thank you for scheduling hearings on the various bills which have been introduced to deal with automobile traffic safety. As you know, I have introduced H.R. 12921 to establish a National Traffic Safety Agency to provide national leader-

ship to reduce traffic accidents losses by means of intensive research and vigorous application of findings. Twenty-five of our colleagues have introduced similar bills.

Of all the various proposals which have been offered, the suggestion for a National Traffic Safety Agency would seem to be the best approach for dealing with this very serious situation. The National Traffic Safety Agency would be headed by an Administrator comparable to the Federal Aviation Administrator. It would do the following: Establish a National Safety Research and Testing Center; provide leadership to achieve a more uniform traffic environment, including more uniform rules of the road, more adequate standards of safety in the manufacture of new vehicles and inspection of vehicles in use, better definition of fitness to drive, and a more uniform driving environment.

I have thought for a long time that steps should be taken at the national level to have uniform safety standards—particularly with reference to limitations on speeds, standardization of highway signs, and driving environment. Although the Federal Government has spent millions building interstate highways, little or nothing has been done at the national level to prescribe and enforce safety standards. Several years ago, when we became alarmed at the increase in accidents involving airlines and military planes, we established the Federal Aviation Agency to coordinate and improve safety in the air. Now, we should establish an agency to improve safety on the ground. It is my hope that early and favorable action will be taken.

Thank you.

The CHAIRMAN. Thank you for your views, Mrs. Bolton. If there are no questions, we will proceed to hear the Honorable William Hathaway.

**STATEMENT OF HON. WILLIAM D. HATHAWAY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MAINE**

Mr. HATHAWAY. Mr. Chairman and members of the committee; I am grateful to the chairman and members of this distinguished committee for permitting me to submit this statement in favor of my bill, H.R. 12554.

Each year 50,000 Americans are indiscriminately killed in senseless automobile accidents; 3 million others are maimed and seriously injured each year; and \$8 billion of our national wealth is annually dissipated by this needless slaughter.

To put these gruesome statistics into perspective, allow me to point out that more Americans died on our Nation's highways (1,780) in the 10-day span that included last Christmas and New Year's than had been lost, up to that time, in all the years of our conflict in Vietnam. On Christmas weekend alone 720 lives were claimed by auto accidents.

My bill would establish a National Safety Agency which would provide national leadership to reduce traffic accident losses by means of intensive research and vigorous application of the findings.

Specifically, this bill would: (1) establish a National Safety Center and the Office of National Traffic Safety Administrator within the Department of Commerce; and (2) provide leadership to achieve a



more uniform traffic environment, including more adequate standards of safety in the manufacture of new vehicles in use, a better definition of fitness to drive, and a more uniform physical driving environment.

The program would include conducting research and engineering studies; establishing national traffic safety standards; collecting and publishing statistics; maintaining library reference and public information services; publishing consumer traffic safety bulletins; promoting uniform State traffic and driver licensing laws; employing experts and consultants; negotiating contracts and making grants to outside firms to assist in the research of the Center; and acting in concert with the States, local governments, and nonpublic institutions and organizations.

Under this bill, motor vehicle manufacturers may certify for labeling or advertising purposes that their new vehicles meet U.S. safety standards if they submit proof adequate in the judgment of the Secretary of Commerce.

Grants to the States of up to 30 percent of the cost of the traffic safety programs they establish are authorized, provided that State plans meet certain standards. State activities eligible for aid may include programs for the improvement of driver education and licensing; motor vehicle inspection; accident reporting; highway design and construction; and highway signs, signals, and controls.

This Agency would not seek to supplant existing public and private agencies, but would provide aggressive leadership to achieve a concert of action.

In many traffic areas national safety standards are absolutely necessary. As to safer cars, individual States cannot legislate many safety features into autos without creating chaos in the automobile industry. Nor can States assure the presence of properly licensed drivers on their roadways, nor can they assure uniform highways and safety regulations unless there are national standards.

In short, the purpose of my bill is to reduce the extent of death, injury, and loss of property resulting from traffic accidents by providing the means for a concerted attack on the problem.

I cannot emphasize enough the importance of halting the escalation in the number of annual traffic deaths. Undoubtedly the causes of these deaths are varied. Dangerous highways, unqualified and reckless drivers, and a lack of proper safety features in cars all significantly contribute to the appalling statistics. Action must soon be taken. It should come in this session of the 89th Congress whose humane concern in providing a better life for all Americans should carry into the critical and lifesaving area of highway safety.

Thank you for your attention and concern.

The CHAIRMAN. Thank you Mr. Hathaway.

Our next witness will be our colleague from the State of California, Ed Reinecke.

#### STATEMENT OF HON. ED REINECKE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. REINECKE. Mr. Chairman and members of the committee; there have been over two dozen bills introduced in the House which call for the establishment of a National Traffic Safety Agency within

NOV 15  
1966

the Department of Commerce. This fact in itself demonstrates broad bipartisan support for this approach in preference to others which have been initiated, including H.R. 13228, the so-called Traffic Safety Act of 1966, which the President specifically endorsed in his transportation message. Prior to recommending enactment of H.R. 13228, however, the President stated:

I am assigning responsibility for coordinating Federal highway safety programs to the Secretary of Commerce. I am directing the Secretary to establish a major highway safety unit within his Department.

The President thus gave tacit approval to the primary objective of H.R. 12548 and H.R. 12561—that of assigning responsibility for the establishment of a nationwide traffic safety program to the Secretary of Commerce.

H.R. 12548 is based on fact—H.R. 13228 is based on fiction. The latter is replete with references to a nonexistent Secretary of Transportation who is assigned “responsibility for promoting national traffic safety.” The bill is presumptive in that it has as its genesis a Department of Transportation which does not exist today—and may not be created within the immediate future. As a matter of fact, the House Committee on Government Operations which has jurisdiction over H.R. 13200, the administration’s Department of Transportation bill, has not even scheduled hearings on the measure to date. The Congress would surely be criticized, and justifiably so, for putting the “cart before the horse” if it approved the administration’s Traffic Safety Act—since its fate is so closely related to that of the controversial and less urgent Department of Transportation proposal.

The weight of evidence to substantiate the urgent need for planning, coordination, and implementation of a nationwide safety program is staggering—the loss of 50,000 lives and \$9 billion in 1965 alone as a result of traffic accidents. The traffic safety problem is a critical one, and should be dealt with immediately and realistically on the basis of available manpower, facilities, and resources. Your committee has recognized the immediacy of the problem by scheduling these hearings early in the session. I hope further action will not be postponed indefinitely pending consideration of the controversial proposal to establish the Transportation Department—which in the present mood of Congress may not materialize.

There is another point I would like to make with regard to the administration’s bill. Unlike the National Traffic Safety Agency proposals (H.R. 12548 and H.R. 12561), it calls upon Congress to appropriate, or I should say expropriate, moneys from the highway trust fund to finance the provisions of the Traffic Safety Act. I think it should be noted that the highway trust fund is extremely deficient and that the administration has not come up with an accurate estimate of interstate highway construction costs—nor has it related the ultimate projected cost to trust fund receipts. It is conservatively estimated that the fund is \$8 billion short of completing the Interstate Highway System on a pay-as-you-go basis. The estimated deficit does not take into account the fact that the President is attempting to finance both his safety program as well as Lady Bird’s beautification program through the highway trust fund. These programs combined will cost about \$300 million per year. In addition, the admin-



istration has recommended that the national forest and public lands highway systems be financed out of the trust fund. They represent approximately \$42 million a year. On top of all this, the President is trying to divert from the trust fund the proceeds, amounting to approximately \$8 million per year, from the Federal aviation gas tax. While he has recommended that 1 percentage point of the revenue produced by the automobile excise tax be transferred to the trust fund to finance the beautification program, this is equivalent to only \$170 million per year. These proposed financial transactions, if permitted by Congress, would represent at the minimum a \$180 million deficit per year—and over a 6-year period would add in excess of another billion dollars to the total deficit of the trust fund.

Broken down, the administration's proposals for 1967 represent:

On the plus side-----	\$170,000,000
On the minus side-----	8,000,000
	300,000,000
	42,000,000
	<hr/> 350,000,000

There will, of course, be a day of reckoning—but if the President has his way, he won't be around to face it. Presently due to expire on October 1, 1972, the President is asking that the life of the highway fund be extended to February 28, 1973. This means that the President's successor will be placed in the unfortunate position of inheriting the debts which he is trying to impose on the highway fund.

It might be well to mention at this point that in his March 24, 1961, budget message to Congress, President Kennedy said "My earlier message on highways contained recommendations for the user taxes needed to assure a satisfactory rate of progress on highway construction at levels previously recommended by my predecessor. This administration will not permit funds for this program to be diverted from general revenue." Thus, both of President Johnson's immediate predecessors adhered to a pay-as-you-go formula to complete construction of the Interstate Highway System. Likewise, Congress has consistently adhered to this formula and has refused more than once to add other burdens to the highway fund. I hope, in its wisdom, it will refuse to do so again.

I am not saying that the National Traffic Safety Agency proposals are perfect, but they do represent a sound and realistic approach with which your committee can work.

The CHAIRMAN. Thank you for your presentation, Mr. Reinecke.

Mr. REINECKE. Thank you for the opportunity Mr. Chairman.

The CHAIRMAN. Next we shall hear from Mr. Love of Ohio.

#### STATEMENT OF HON. RODNEY M. LOVE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OHIO

Mr. LOVE. Mr. Chairman, as you know, Congress has found that traffic accidents are a menace to the public health and welfare and that they cost the American people \$9 billion and 50,000 lives last year.

I believe that the factors which contribute to such accidents may be minimized or eliminated by a national effort and, it is the purpose of my bill, H.R. 12551, and other similar bills on which you are now

holding hearings, to reduce the extent of death, injury, and loss of property resulting from traffic accidents by providing the means for a concerted attack on the problem.

In order to carry out the purposes of this act, the Secretary of Commerce shall establish, within the agency, a National Traffic Center. The Center shall consist of a library, laboratory, research and testing facilities as may be necessary to examine every facet of the traffic accident phenomena in order to find the principal causes of traffic accidents and injury and to identify the most effective and practical means for their prevention.

The Secretary shall establish, and publish in the Federal Register, not later than 6 months after the effective date of this act, regulations prescribing national traffic safety standards. These standards shall be effective on the date specified in the regulations.

The Secretary is authorized in accordance with the provisions of this act to make grants to the States to pay up to 30 percent of the cost of the establishment or expansion of State programs for improving highway traffic safety.

Mr. Chairman, may I conclude, by thanking this committee and you personally, Mr. Staggers, for putting traffic safety high on the national action agenda and for the promise that such congressional interest strengthens our mutual desire for a safer and healthier America.

The CHAIRMAN. Thank you for your brief presentation, Mr. Love.

Our next witness will be our colleague from the State of Connecticut, the Honorable William St. Onge.

**STATEMENT OF HON. WILLIAM L. ST. ONGE, A REPRESENTATIVE  
IN CONGRESS FROM THE STATE OF CONNECTICUT**

Mr. ST. ONGE. Mr. Chairman, I am truly delighted that this distinguished committee has scheduled these public hearings on legislation to deal with one of our major national problems, which is tragically felt by all segments of our population in all parts of the country. I refer to the growing menace of our traffic problem and the severity of the traffic toll we are paying.

On February 3, 1966, I introduced a bill, H.R. 12552, to establish a National Traffic Safety Agency to study means for reduction of traffic accident losses. This is the same measure introduced by our colleague, the Honorable James A. Mackay, of Georgia, who has done a commendable job in research and gaining support for the proposal. I therefore appreciate the opportunity to express my views regarding this legislation and wish to thank you and your committee for giving me this opportunity.

There is no doubt in anyone's mind today that we must act—and act fast—to seek ways how to reduce the enormous traffic toll in the Nation. The price we are paying is already exceedingly high and is growing higher from year to year, in fact from day to day. There were 49,000 traffic deaths in the country in 1965 and it is estimated that, if it continues at this rate, traffic deaths will reach a total of 100,000 by 1975. In addition, the Nation suffered some 3.5 million injuries on its highways and an estimated \$9 billion damage to property during the past year.

I fear that we are approaching the point of a national catastrophe when we consider the high price we are paying on our roads and high-



ways. The traffic toll is costing us almost 1,000 lives every week, nearly 70,000 injuries, and about \$175 million loss or damage to property. These are staggering losses to life and property which our Nation can ill afford.

The bill I am cosponsoring does not provide suggestions to automobile companies or driver groups as to specific safety measures. There have been many such suggestions made, but what we need now is a responsible authority to study these measures from the point of view of the greatest safety to our people and to recommend which of these are to be adopted, as well as to seek new safety standards.

Specifically, the bill provides for the establishment of a National Traffic Safety Agency in the U.S. Department of Commerce whose task it will be to conduct research regarding the causes of traffic accidents and to seek the most effective and practical means for improving traffic safety. The Agency's findings will be used to establish national traffic safety standards.

Among the Agency's activities will be research and engineering studies, collection of traffic statistics, provide public information services, promotion of uniform State traffic and driver licensing laws, grants to the States for traffic safety programs, including motor vehicle inspection, driver education, highway design and construction, highway signs and controls, as well as cooperation with the States, local governments, and organizations to establish greater safety on the highways.

I think the time has come for Congress to take the necessary action to stop the slaughter on our highways. The situation will not be solved itself. We must undertake a concerted attack on this problem before it gets out of hand. It has become a national problem and for this reason I believe that Congress must provide the leadership to deal with it on a national scale.

I again wish to thank your committee for its foresightedness in dealing with this issue and urge you to recommend early action to the House.

The CHAIRMAN. Thank you Mr. St. Onge. We shall continue by hearing from the Honorable Abraham Multer. You may proceed Mr. Multer.

#### STATEMENT OF HON. ABRAHAM J. MULTER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

Mr. MULTER. Mr. Chairman, I appreciate the opportunity afforded me to express my views on my bill, H.R. 12905, to establish a National Traffic Safety Agency.

I shall not burden the members of this committee with the many technical aspects of this bill, which I am sure, have by now been fully discussed by the sponsor of H.R. 12548, and many of our other colleagues who have also introduced identical bills.

In general, this bill would establish a National Traffic Safety Agency in the Department of Commerce. Its purpose would be to provide national leadership to reduce death, injury, and property damage on our highways by intensive research and vigorous application of remedies. It would provide the means for a concerted attack on the problem of death and mayhem on our highways.

The Agency would be headed by an Administrator appointed by the President with the advice and consent of the Senate and would contain a traffic safety center that would research the problem of traffic safety, whose findings would be used to establish national safety standards.

The national traffic safety program to be established would among other things conduct engineering studies and establish safety standards.

Our motor vehicle manufacturers could certify for labeling and advertising purposes that their products meet U.S. safety standards upon adequate proof of compliance.

Grants could be made to States of up to 30 percent of the cost of traffic safety programs established by them.

The need for this bill must be apparent. The number of deaths on our national highways amounts to a national scandal; 49,000 of our fellow Americans met their deaths on the highways in 1965, a new record for 1 year. This carnage on our highways must stop.

While we recognize the need for national safety programs in the case of air travel, we continue to view highway travel myopically. The Federal Aviation Agency employs 47,000 people to protect the 12 percent of our people who fly each year. No similar agency of the National Government performs such function for our vastly larger number of highway travelers. It just doesn't make sense for us to continue to ignore the problem of highway travel at the national level.

Individual States cannot legislate safety features into automobiles without creating chaos in the industry.

To establish a uniform system of highways, we must have national standards. This bill does not seek to supplant existing public and private agencies in the field. It seeks only to provide aggressive national leadership so that uniformity of action can be achieved by all agencies of State and local governments, members of industry and other public or private organizations that are concerned with the problem.

We either travel together in safety on the highway through national leadership and common effort by all the interested parties or we travel separately on the highway, each in his own way to face, as best he can, the death and mayhem that lurks there.

I urge the committee to favorably report H.R. 12905.

The CHAIRMAN. We appreciate your views Mr. Multer. We have several other Members of Congress to hear, so we shall proceed by hearing from our colleague from Iowa, the Honorable John Culver.



STATEMENT OF HON. JOHN C. CULVER, A REPRESENTATIVE IN  
CONGRESS FROM THE STATE OF IOWA

Mr. CULVER. Mr. Chairman, I wish to thank you and the distinguished members of this committee for affording me this opportunity to discuss with you the proposed legislation to establish a National Traffic Safety Agency.

Earlier this year, automotive safety hearings were conducted in Des Moines by the attorney general of the State of Iowa, and I have submitted a copy of the transcript of those hearings to your committee for your consideration. I am pleased to note that the concern reflected in those hearings is a nationwide concern as evidenced by the number of proposals you have before you today, introduced by my colleagues from every area of the country without partisan consideration.

There is no question that the alarming rise in automobile deaths on our Nation's highways is one of the most critical domestic problems we face today. Shocking statistics have been cited and more will be introduced in these hearings to show the mounting costs, the tragic losses, and the number of lives that might have been saved and accidents that might have been prevented.

The problem of traffic safety has been with us since the automobile was put into popular use. As early as 1924, then Secretary of Commerce Herbert Hoover called a national conference to consider the steadily increasing problem of highway and auto safety, and such meetings have been held with notable regularity ever since. The Department of Commerce, the Department of Health, Education, and Welfare, and other Government agencies have variously considered the problem and have established offices or positions with responsibility in this area.

And yet, in 1966, there has still been no effective national leadership in traffic safety, no concerted effort within government to counter one of the most shameful drains on our Nation's human and financial resources. Fatality figures continue to mount, measurable costs have reached almost \$9 billion, and each year—indeed each month—statistics become more alarming.

It is time for national leadership—in fact, that leadership is long overdue. It is time—past time—to establish fixed responsibility within the Government. Now, in this 89th Congress. These hearings are an encouraging sign that, this year, something will be done.

The legislation which you have before you to establish a National Traffic Safety Agency would mark the beginning of a new era of national action and responsibility to reverse the shocking trend in highway accidents. It does not promise easy solutions or immediate drops in fatality rates. But it does promise the first effort on a national scale to research, to study, to explain, and to offer—and implement—solutions to the sorry situation in which we find ourselves today.

Critics of the Federal Government will say this is a local problem, a matter of State responsibility—that Washington has no right to interfere. But our highways have no State and local boundaries. A driver is not limited in his travel from State to State. And the citizen of one State has a right to protection and security on our Nation's highways, not only in his own State but in every other as well.

Opponents of the establishment of another Federal Agency will argue that the problem can be met within the existing structure of governmental organization. I would remind them that this existing structure has not been able to meet the problem to date. Offices and officials have struggled with various aspects of the problem, but no one has dealt with the total environment of traffic safety. If we are to be successful in this endeavor, we must define explicitly the Federal role by an appropriate act of Congress. And I am convinced that this role can best be filled by a single agent—a National Traffic Safety Agency headed by a qualified Administrator—with fixed responsibility, with complete authority, and with no other obligations to compete for time and attention.

Others will protest the cost of such a national effort. I would call their attention to the mounting costs of traffic accidents—over \$8 billion last year, plus the incalculable losses in terms of the value of human lives. Traffic accidents are the most common causes of death in the age group from 5 to 30, and it is this age group that possesses the greatest potential for contributing to our economy and our society.



We are spending millions on public health programs—research, treatment, prevention and hospital construction—as well we should. And yet the 1,700,000 individuals injured in traffic accidents since 1964 equal the number of total beds in all U.S. hospitals for the same year—a tremendous public health problem.

We are increasingly concerned about air safety—as well we should be. The 727 occupies national attention at the present time, and yet, if a 727, fully loaded, crashed every day, the number killed in a year would be 20,000 less than the traffic toll for 1965. We spend \$100,000 per victim to investigate air crashes. We spend 5 cents per victim to investigate auto crashes.

We are concerned about the safety of our servicemen in conflict and spend billions to protect and support them—as well we should. Yet in a period from January 1961, to January 1965, while approximately 2,000 military men were killed in combat in Vietnam, more than 6,900 servicemen were killed in motor vehicle accidents on the public roads.

In proposing a National Traffic Safety Agency we are not suggesting that the Federal Government should regulate and control the Nation's highways. We are not suggesting that Congress fix performance standards for the automotive industry. We are not suggesting that States abdicate their primary responsibility for traffic safety.

We are suggesting that a specific agency be established with fixed responsibility to conduct research and investigation in all relevant areas of traffic safety, to encourage the enactment and enforcement of uniform State traffic and licensing laws, and to develop and establish national traffic safety standards. We are suggesting that this agency provide for the certification of motor vehicle manufacturers whose vehicles are designed to meet national safety performance standards established by that agency. And we are suggesting that grants be authorized to State safety agencies to assist in establishing and expanding programs for traffic safety.

We are asking the 89th Congress, now, to focus national attention on automobile and traffic safety and to direct the best national leadership and coordination ability to stemming the awful toll of destruction and tragedy on our highways.

The CHAIRMAN. Thank you for your views Mr. Culver. If there are no questions, we shall hear next from Mr. Donohue of Massachusetts. You may proceed Mr. Donohue.

STATEMENT OF HON. HAROLD D. DONOHUE, A REPRESENTATIVE  
IN CONGRESS FROM THE STATE OF MASSACHUSETTS

Mr. DONOHUE. Mr. Chairman and members of the committee, on behalf of millions of Americans, may I express the deepest appreciation to you for the conduct of these hearings on various legislative proposals to save the lives and the limbs of our people traveling upon the American highways. In my opinion, this is one of the vitally important legislative subjects that today challenges our legislative prudence.

I am grateful to you, indeed, for the opportunity to testify in favor of my bill, H.R. 12556, to establish a National Traffic Safety Agency within the Commerce Department and the similar and related bills you are currently considering. Please let me emphasize right now my earnest conviction that the particular measure or author is not the important thing in this matter. My sole reason for being here is to urge your approval of whatever bill or combination of bills you deem best designed to protect and promote the lives and safety of our fellow citizens traveling our highways.

In summary my bill, and similar bills, proposes the establishment of a National Traffic Safety Center to pinpoint the principal causes of traffic accidents and project practical means for their invention through the application of national traffic safety standards that would be best on the profound research and findings of the National Traffic Center. The bill also provides incentives to enlist the cooperation of automobile manufacturers and further offers encouragement, through grants, to the States for the expansion of their own programs to improve highway traffic safety.

Over these past several years, the issue of highway safety has been steadily arousing the conscience of the American public and I believe the time is long overdue for it to become a major legislative concern of the American Congress.

In 1965 the national auto fatality toll reached the 50,000 mark. The annual injury list is over 1.7 million persons. The direct cost of automobile accidents has been reliably estimated at more than \$8 billion a year.

The dimensions of this problem, on these statistics alone, are staggering in their revelation of losses of life, permanent injuries and economic waste. Surely it is a most urgent matter that calls for national leadership and guidance for correction.

Mr. Chairman, such national leadership and guidance would be projected by the establishment of the National Safety Center we propose and effectively applied through cooperating Federal, State, and local campaigns to accomplish national reductions in the almost unbelievable number of fatalities and injuries now occurring on our highways each year.

Such an agency, at the Federal level, would also provide imperatively urgent overall direction and assistance to traffic safety efforts now being extended by 16 different Government units and more than 45 private organizations.

Mr. Chairman, the objective of all of these bills before you is clearly in the national interest. The need of the legislation is practically of



a desperate nature. The duty and obligation of the Congress to act in sensible concern for the protection of the lives and safety of American taxpayers is clear. For these basic reasons, I urge this committee to approve and recommend appropriate legislation for the accomplishment of these objectives at the earliest possible date.

I would like to again, Mr. Chairman, thank you and your distinguished committee members for your courtesy.

The CHAIRMAN. Thank you, Mr. Donohue. We have one more Member to hear and then we shall recess. Our next witness will be Mr. Machen of Maryland.

**STATEMENT OF HON. HERVEY G. MACHEN, A REPRESENTATIVE  
IN CONGRESS FROM THE STATE OF MARYLAND**

Mr. MACHEN. Mr. Chairman, I am Hervey G. Machen of the Fifth Congressional District of Maryland. I offer this statement in behalf of my bill, H.R. 12559, and in behalf of those identical to it. First, I would like to compliment the gentleman from Georgia, Mr. Mackay, for his efforts and leadership in drafting and introducing this measure which I strongly support.

As in practically every State, we in Maryland are not immune from the crisis on our highways. No one is. In the past several years, for example, we have lost two members of the house of delegates in traffic accidents. One of them was a very close friend of mine.

All too frequently it takes the loss of this magnitude and the resulting publicity to shock the public mind into something more active than the state of euphoria in which it wallows on the subject of traffic safety.

The tragedy is more than the loss of life, limb, and property. We see it every time there is an automobile accident. Others drive by, slow down to take a close look, and then, clucking their tongues, they drive away noting what a pity it is that the accident occurred. Very few are impressed enough to drive more carefully, or to correct mechanical problems which render their vehicles dangerous weapons.

Mr. Chairman, I don't want to confuse the issue by bringing in the war in Vietnam. But it has a bearing on the highway safety issue because our traffic losses here at home greatly surpass those of our men who are fighting for democracy. If we spent one-tenth of the funds that are being spent to stop communism in Vietnam on highway safety, think of the great national effort we could make. I cannot understand a country that fights for peace in the world but is backward in bringing peace to our highways. With our vast national resources we should be able to accomplish both.

The Federal Government has taken leadership in a broad range of pressing issues that confront our fast-moving society. Traffic safety long ago reached the level of nationwide significance that should qualify it for demonstrable leadership by the National Government. With our system of interstate highways we have prevented certain types of accidents, such as head-on collisions, because of highway design. But this has not prevented rear end collisions, driver's error, and a multitude of other problems that are crying for study and solution.

Our President felt it important enough to propose his own program for national traffic safety. It is my hope that with the recent wide-

spread attention this subject is now receiving in the Congress a far-sighted program of national leadership in traffic safety will be enacted into law this session.

I deeply appreciate whatever consideration you can give to reporting favorably such a program.

The CHAIRMAN. Thank you Mr. Machen.

The committee will stand in recess until 2:15.

(Whereupon, at 1:45 p.m., a recess was taken until 2:15 p.m. of the same day.)

#### AFTER RECESS

(The committee reconvened at 2:15 p.m., Hon. Harley O. Staggers, chairman, presiding.)

The CHAIRMAN. The committee will come to order.

We are attempting by this method of coming here and meeting as long as we can, and answering rollcalls and coming back, to finish with this important legislation.

So we think it is so important that several members of this committee have been willing to sacrifice their time and perhaps their interest in other things in order to be here to give attention. I would like to say to the witnesses this afternoon that we are going to try to get through with each and every one of you who is listed here if we possibly can.

I would appreciate your assistance in keeping your remarks as short as you can. We want to make the record complete. We do not want too much repetition if we can help it.

I would appreciate the assistance of each member of the committee in being very meticulous this afternoon in trying to hold down their questions to 5 minutes. With that understanding I would like to call our first witness of the afternoon, Mr. Abersfeller, Commissioner of the Federal Supply Service, General Services Administration. Will you take the stand, please? I notice you have some gentlemen with you; if you will identify them for the record, we will appreciate it.

#### **STATEMENT OF HON. HEINZ A. ABERSFELLER, COMMISSIONER OF THE FEDERAL SUPPLY SERVICE, GENERAL SERVICES ADMINISTRATION; ACCOMPANIED BY GEORGE RITTER, ASSISTANT COMMISSIONER FOR STANDARDS AND QUALITY CONTROL; AND ROBERT DAVIS, DIRECTOR OF LEGISLATION**

Mr. ABERSFELLER. Mr. Chairman, Mr. Ritter on my right is Assistant Commissioner for Standards and Quality Control. Mr. Davis is from the Administrator's office and is on my left.

Mr. Chairman and members of the committee, I am Heinz A. Abersfeller, Commissioner of the Federal Supply Service of the General Services Administration.

On behalf of the Administrator of General Services, Lawson B. Knott, Jr., who asked me to represent him at this hearing, I wish to express our appreciation for the opportunity of appearing before your committee in connection with your consideration of H.R. 13228, a bill to provide for a coordinated national safety program and establish-



ment of safety standards for motor vehicles in interstate commerce to reduce traffic accidents and deaths, injuries, and property damage which occur in such accidents.

First, Mr. Chairman, I wish to state for the record that the General Services Administration is in full accord with the objectives of H.R. 13228 and urges early enactment of this legislative proposal. Such enactment would provide, as recommended by the President, for a national program of highway safety, including intensification of research into the causes of highway accidents; improvement of minimum safety standards for the highway, motor vehicle, and driver; and for assistance and encouragement to the States to develop programs for improvement of highway safety.

In the interest of substantially reducing the current tragic toll in highway deaths and injuries, the President, as you know, has repeatedly emphasized the need to improve each aspect of the death and injury triangle—the vehicle—the driver—and the road.

As the President stated in his message to the Congress of March 2, 1966, on the subject of transportation: The carnage on the highways must be arrested. For as he pointed out in that message, 105,000 Americans died in accidents last year. More than half were killed in transportation or in recreation accidents related to transportation, 49,000 deaths involved motor vehicles. Millions of Americans were injured in transportation accidents—the overwhelming majority involving automobiles.

In view of such grim statistics, Mr. Chairman, the Federal Government, as owner and operator of one of the largest fleets of motor vehicles, clearly has an obligation to continue to take whatever steps are necessary and feasible to combat the annual toll of deaths and injuries resulting from traffic accidents. As pointed out by the Administrator of General Services in his testimony of March 22, 1965, before the Subcommittee on Reorganization of the Senate Committee on Government Operations concerning the Federal role in traffic safety, GSA is vitally interested in and concerned about motor vehicle and traffic safety because of such factors as—

- (1) The obligation to set a national example for the public that will encourage more extensive use of passenger safety devices in motor vehicles;

- (2) The responsibility for prescribing Federal standard purchase specifications, including the prescribing of safety standards for passenger carrying motor vehicles procured for use by the Federal Government;

- (3) The maximum utilization of Government-owned motor vehicles through safe operations;

- (4) The reduction of tort claim costs resulting from motor vehicle accidents; and

- (5) The operation of Government-owned motor vehicles at the lowest possible cost to the Government through safe driving.

In accordance with section 206(a) of the Federal Property and Administrative Services Act of 1949, 63 Stat. 377, as amended, GSA, through its Federal Supply Service, prescribes Federal standard purchase specifications. In the automotive field, GSA has developed a Federal standard which provides for the inclusion of numerous safety

features in motor vehicles procured by the Government. In addition the standard incorporates by reference, applicable Federal specifications for component items designed on this to insure safety in the use of motor vehicles. These items include brake linings, brake shoes, tires and tubes.

Under its authority, GSA has established a comprehensive program for the development of specifications and standards to insure that the Federal Government obtains passenger-carrying motor vehicles, as well as other types of vehicles which possess characteristics suited to Government needs.

Those specifications and standards are developed in consultation with industry, associations, and technical societies, as well as with representatives of other Federal agencies.

In prescribing Federal standards and specifications for motor vehicles purchased for use by the Government GSA has and shall continue to keep safety in mind as one of the major objectives of such standards and specifications. In this connection, it should be pointed out that GSA amends the standard and related specifications on automobiles and trucks yearly to reflect vehicle improvements and also to incorporate safety devices which have proven to be meritorious.

Since the Federal Government's purchase of approximately 60,000 passenger-carrying motor vehicles per year represents less than seven-tenths of 1 percent of the new passenger car sales in the United States, the Government in the past has been limited to those safety accessories which the manufacturer provides as standard or optional equipment.

A very significant step toward safety regulation of the automobile industry was taken by the enactment of Public Law 88-515, approved August 30, 1964 (78 Stat. 696).

This law requires passenger carrying motor vehicles purchased for use by the Federal Government, except vehicles designed to or used for military field training, combat, or tactical purposes, to meet such reasonable passenger safety standards as the Administrator of General Services shall prescribe.

Pursuant to the provisions of this law and the authority contained in the 1949 Federal Property Act, the General Services Administration has established uniform standards which will not only be of benefit to the personal safety of officials and employees of the legislative and judicial branches of the Government, as well as the executive branch, and the government of the District of Columbia, but also will increase the inducement to the automobile industry to include as standard equipment the safety devices required on vehicles purchased for Federal use.

On June 30, 1965, GSA issued regulations in the form of a Federal standard which provided standards for the following devices:

1. Anchorage for seat belt assemblies.
2. Padded dash and visors.
3. Recessed dash instruments and control devices.
4. Impact absorbing steering wheel and column displacement.
5. Safety door latches and hinges.
6. Anchorage of seats.



7. Four-way flasher.
8. Safety glass.
9. Dual operation of braking system.
10. Standard bumper heights.
11. Standard gear quadrant P-R-N-D-L automatic transmission.
12. Sweep design of windshieldwipers—washer.
13. Glare reduction surfaces.
14. Exhaust emission control system.
15. Tire and safety rim.
16. Backup lights.
17. Outside rearview mirror.

In the development of this Federal standard, we received excellent cooperation and valuable assistance from the automobile industry, technical societies, Government agencies, and other organizations and individuals interested in passenger safety.

The safety devices included in the standard apply to sedans, carryalls, stationwagons, buses, and light trucks up to 10,000 pounds gross vehicle weight where appropriate.

We recognize that this initial standard is only the beginning of the work required to improve the safety of automotive vehicle passengers. It has been kept under continuous review and revised to provide for greater passenger protection as further developments are proven to be feasible.

We consider our responsibility for prescribing standards for passenger safety in motor vehicles purchased for use by the Federal Government to be a constant and continuing one, and you may be assured that we shall discharge this important responsibility faithfully and diligently.

Since our initial publication, we published on March 8, 1966, in the Federal Register 11 revised and 9 new standards. Thirty days were allowed for public comments and we expect to have the additional standards published in final form by July 1, 1966. These will be effective for the 1968 models.

In the development of these proposals, we have had the benefit of many written comments, suggestions, and recommendations. We have also held three major meetings attended by representatives of the Government, medical profession, research activities, industry, and the public.

The Government of Canada was also represented, as were the concerned industries of Europe and Japan. Although we are not buying automotive products of European or Japanese origin, these industries apparently recognize the import of our activity as an example for the application within their own countries.

The new items include—

- Improved location or construction of window and door controls, ashtrays, lighters, and armrests.
- Padding for seat backs, including school buses.
- Headrests for front seat occupants.
- Automobile side profile market devices.
- Rear window defogger.

Roll bars for jeep type vehicles, and  
Improved construction and stability of fuel tanks and filler pipes.

The search for safety is never ending; while the preceding proposals were under development, we were projecting areas of interest and concern which will be the basis of long-range planning for both research and development.

As an example of the 68 areas for improvements we have identified so far, we were very anxious to set standards which will minimize hazards created by the gearshift lever on the floor and on the steering column where it can spear front seat passengers in side impacts. We believe there is much that can be done to improve passenger compartment strength to resist side impacts and roll overs.

There should be no opportunity for the engine or heavy items in the trunk to intrude into the passenger compartment in a collision. There should be a certain feel of the road in all cars we drive.

We should have better vision, front and rear. These are just a few of the areas to which we are now directing our attention. We are actively investigating these and other areas to consolidate research already completed, if any, and to establish projects to provide basic data for our future standards.

To assist us in the investigation of these additional potential safety items and in the establishment of standards which will contribute most effectively to the reduction in accidents, the Administrator of General Services has announced his intent to establish a panel of nationally recognized authorities in the field of automotive safety research.

Panel members will be selected from those who have extensive experience in automotive safety and related fields and who have demonstrated their public spirit by agreeing to serve on this important panel.

Our endeavor in this respect has been given top priority in view of the President's recent directive as stated in his transportation message of March 2 to the Congress:

To make Government vehicles safer, I have asked the Administrator of General Services, in cooperation with the Secretary of Commerce, to begin a detailed study of the additional vehicle safety features that should be added to the Federal fleet.

The development of these standards and specifications is not a simple task. For as also pointed out by the President in his transportation message:

Our knowledge of causes is grossly inadequate. Expert opinion is frequently contradictory and confusing.

This is in itself one of the most significant challenges we face in the field. However, to the best of our ability, we take all of the conflicting opinions and data and sift from these the course of action we believe to be appropriate and right.

Even so, when the standards are prescribed some people, in reviewing them, miss their full significance. In this connection two important things should be kept in mind. First we are issuing per-



formance requirements to set limits such as the minimum view through a rearview mirror, the maximum cranial force causing an instrument panel to deform, the maximum force causing a knob to break away, etc. Second, in contrast to standards developed within industry, our standards are mandatory—at least for Government motor vehicles.

Any segment of industry may or may not abide by industrial standards, and there is no requirement that compliance or noncompliance be recorded. For Government vehicles, our requirements call for standard items and construction, and remain so until we require change.

On behalf of the Administrator of General Services I want to assure you and the members of your committee that within the bounds of GSA's statutory authority and responsibilities we shall continue to do everything we can to assist in preventing traffic accidents and protecting persons and property therefrom.

If you or members of your committee have any questions you wish to ask we shall be pleased to answer them at this time or provide the desired information for the record.

Mr. FRIEDEL. Thank you. Will you describe to us how GSA devised safety standards for Government vehicles?

Mr. ABERSFELLER. After the law was enacted we reviewed the congressional history which was discussed at some length this morning going back to the 1956 hearings.

From that legislative history and from the testimony in that history we gleaned several items which had been mentioned prominently and which had been established, we thought quite eloquently and clearly as being needed.

In addition then to that—

The CHAIRMAN. When you say we to whom do you refer?

Mr. ABERSFELLER. General Services Administration.

The CHAIRMAN. Is there any special group?

Mr. ABERSFELLER. In our organization, that is, the Federal Supply Service of GSA, and within Mr. Ritter's office, we have a director of motor vehicle standards. Mr. Walter Roberts directs this particular group. I have spent a good deal of my time on this personally as has Mr. Ritter. When we use "we" we are really talking of GSA, all of us who have dedicated nearly the last 2 years to this particular program.

In any event having gleaned from the congressional testimony items, after having consulted with a variety of people whom we considered to be experts in the field, we came up with a shopping list of about 30 items. By shopping list I am referring now to ideas for improvement that people though would be helpful.

After analyzing these, that list was further reduced to 25. Five fell by the wayside. Late in the calendar year 1964, about December of 1964, eight more of those fell by the wayside.

We concentrated on 17. I might point out at this time, Mr. Chairman, as you may well know, the public law required that the Administrator of General Services publish standards within a year after enactment of that law—Public Law 85-515—August 30, 1964—.

This was a mandatory requirement. There was not yet authorization but there was direction. What we wanted to do was to avoid

spending time and in fact spinning our wheels on items which were controversial, but get right to the nub of what we thought we could do in the time specified.

In any event these resulted in 17. These 17 proposed standards were then published in January of 1965 for public comment. They were commented on and published finally in some revised form in June of 1965. I might also say that helpful to us at that point in time was the testimony given in the congressional hearings and the strong feelings of Members of Congress such as yourself, Mr. Chairman, with this as our guide we set out to set standards for those items which we were convinced were causing most of the injuries and that is in the area of the so-called second collision.

As you know, from some work that Cornell had done, on the roughly 26,000 accidents cases studied, 85 percent of the fatalities are caused by ejection, by the windshield, by the dash, by the steering wheel, and failure of door latches to hold.

Since we set out to attempt to correct the significant items initially, we deferred the remainder to this year and subsequent years.

Mr. FRIEDEL (presiding). How many paid consultants have worked on automobile safety for GSA?

Mr. ABERSFELLER. I am sorry, sir.

Mr. FRIEDEL. Do you have any paid consultants, working with your staff?

Mr. ABERSFELLER. Not at this time in the form of paid consultants. We do have a contract with Wayne State University for research. Prof. Larry Patrick, of Wayne State, is doing the work for us there. We have four or five consultants under consideration in various areas.

We have been getting unstintingly of the time of people like Dr. Gikas, Dr. Huelke, Mr. Severy, of UCLA, Col. John Stapp who will testify later today, and Mr. Stieglitz. A wide variety of other experts have also given us unstintingly of their time.

We have taken full advantage of it.

Mr. FRIEDEL. Do you have any consultants working on the testing of tires?

Mr. ABERSFELLER. We have no consultants working on the testing of tires, Mr. Chairman.

The National Bureau of Standards is doing some test work for us on tires. We have recently completed a contract with the Texas firm for some actual over the road testing of tires.

Mr. FRIEDEL. Do you have a standard for tires now?

Mr. ABERSFELLER. We do have a standard on tires which we are not very well satisfied with and which we are about to change.

We are about 60 to 90 days away from a change. The proposed standard has been circulated to the industry for its comment. As soon as we receive those comments and evaluate them we will be prepared to go out for a change in the tire standards.

Mr. FRIEDEL. Will you furnish the committee with whatever recommendations you make on that?

Mr. ABERSFELLER. Indeed we shall.

(The information requested will be found in the committee files.)

Mr. FRIEDEL. Gentlemen, we have quite a few witnesses. We will adhere to the 5-minute rule.



Mr. Moss. Mr. Chairman, if we have the 5 minute rule and if I have questions beyond the 5 minutes I will request an opportunity to return to the witness when the other questions are completed.

Does the government maintain any statistics on vehicles by make or by model which are involved in accidents?

Mr. ABERSFELLER. Not to my knowledge, Mr. Congressman.

They could be identified since we do have accidents reported and it would mean a review of the records but no specific statistics are available that I am aware of.

Mr. Moss. Does the Government attempt to ascertain the cause, as to whether it is mechanical failure? Beyond just determining whether the driver again was responsible or not responsible is an examination made of the vehicle?

Mr. ABERSFELLER. Mr. Moss, I will have to answer that generally. There are cases where these kinds of studies are made. We do not do a very good job in that field in my judgment.

Mr. Moss. Would they be extremely unusual cases or would they be typical cases?

Mr. ABERSFELLER. They would be unusual cases.

Mr. Moss. Then the general policy of the Government is not to examine the vehicle to determine what was the approximate cause of the accident?

Mr. ABERSFELLER. I would like to put it this way, sir. It has not been. It is now being.

Mr. Moss. When did it start?

Mr. ABERSFELLER. About 3 to 4 weeks ago.

Mr. Moss. Have orders been generally circulated so that the full observance of this new requirement will be followed?

Mr. ABERSFELLER. No; they have not been.

Mr. Moss. In other words, this is a proposal for the future?

Mr. ABERSFELLER. This is correct.

Mr. Moss. I think the committee would be interested in receiving some indication of the steps taken to improve—to implement that.

Now on the matter of statistics by making a model do you keep cost statistics, operational cost statistics by make or model in order to determine which car is the most economical to operate?

Mr. ABERSFELLER. Not to my knowledge.

Mr. Moss. In other words, your analysis lacks detail.

Mr. ABERSFELLER. Correct. In terms of cost we do keep cost records.

Mr. Moss. Will you be giving a more careful look in the future to these items as they relate to make and model in an effort to determine whether there might be common cause in some instances or common types of accidents by makes or models?

Mr. ABERSFELLER. The entire area is certainly under investigation and consideration now; yes, sir.

Mr. Moss. My question was far more specific than that. I would hope that your answer could be at least prospective and more specific than that.

Is it intended to act to extrapolate in the future from your records this information which appears to have some significance?

Mr. ABERSFELLER. Are you referring to make and model?

Mr. Moss. Correct.

Mr. ABERSFELLER. It is not currently contemplated. This is a point we have not discussed.

Mr. Moss. How much urging would it take to have it become contemplated?

Mr. ABERSFELLER. It is now contemplated.

Mr. Moss. I would like to have a report on the implementation of the contemplation. I understand then in the past you published a chart summarizing the views and comments of GSA on proposed standards.

Is it your intention to continue this summary of views or comments?

Mr. ABERSFELLER. Yes, indeed.

Mr. Moss. Do you utilize the results of research undertaken at universities and colleges under Federal auspices?

Mr. ABERSFELLER. Yes; we do.

Mr. Moss. Have you had the fullest of cooperation for instance from the Cornell Research and from Wayne State and from research at the University of Southern California?

Mr. ABERSFELLER. Yes; we have.

Mr. Moss. Is this part of the research on which you base your original compilation of 30 items which should be incorporated in the cars purchased for the account of GSA?

Mr. ABERSFELLER. To a large extent; yes.

Mr. Moss. To a significant extent?

Mr. ABERSFELLER. To a significant extent.

Mr. Moss. You relied on supports supplied to you by the research projects?

Mr. ABERSFELLER. As to the application or the consideration of the 30 items under study we did not rely totally on those studies for the development of the final standard.

Mr. Moss. I use the term "significant," not "total." Significantly you did rely?

Mr. ABERSFELLER. Yes.

Mr. Moss. Have then you had the fullest disclosure from these projects funded partly by the Federal Government whenever you have requested information?

Mr. ABERSFELLER. Indeed, at least from our point of view. Obviously if someone withholds something that we don't know exists, we have no way of measuring that. But certainly we have had the utmost in cooperation from our point of view.

Mr. Moss. Now you indicate that you have a research project underway at Wayne State?

Mr. ABERSFELLER. Yes.

Mr. Moss. Is that one separately funded by GSA?

Mr. ABERSFELLER. Yes.

Mr. Moss. How is that staffed? What is the format of its operation? Does it take referrals from you for evaluation and testing or does it initiate and propose on its own for your consideration?



Mr. ABERSFELLER. In this particular case this is a set project in the sense that a group of people, not only ours but several other consultants and others identify—

Mr. Moss. You are participating in the funding of the Wayne State project which receives money from other Federal departments?

Mr. ABERSFELLER. No, sir; this is total funding on our part with a specific end result requested. This deals with the front end of the car. We are concerned with more knowledge regarding the steering wheel, steering column, as related to clinical evidence from research on accidents.

Mr. Moss. What were the five items releted from your list originally? You made a compilation of 30 items.

Mr. ABERSFELLER. I am sorry, Mr. Moss, I will have to provide that for the record. I know one of the items was a headrest.

(The information requested follows:)

FIVE PROPOSED SAFETY STANDARDS INCLUDED IN ORIGINAL LIST OF 30—DEFERRED

1. Roll-bar in roof.
2. Hinge all doors from front.
3. Automatic dimmer switch.
4. Shock-absorbing bumpers.
5. Air intake near top of car.

Mr. Moss. What eight items were then excluded from the 25 remaining after you had consulted with—I believe you used the term various experts—and you had gleaned from congressional hearings and debates, and so forth? What were the eight items?

Mr. ABERSFELLER. Again I don't have those. We will have to provide those for the record.

(The information requested follows:)

EIGHT PROPOSED SAFETY STANDARDS INCLUDED IN LIST OF 25—DEFERRED

1. Improved storage space and bulk-head behind rear seats.
2. Governors—(speed indicator and warning device).
3. Rear window defogger and wiper.
4. Padded roof lining.
5. Non-injury handles and window control.
6. Seats designed to prevent neck injury (safety headrest).
7. Constant radius of curvatures in window glass.
8. Standard location of brake release and other panel instruments.

Mr. Moss. As to the 17 I would like to ask that you supply for the record now the specific standards covering each of the 17 items published under date of June 30, 1965, and the specific standards proposed for the additional 9 items discussed on page 9 of your statement.

Mr. ABERSFELLER. Very good, sir.

(The documents requested follow:)

## Fed. Std. No. 515

June 30, 1965

(Effective September 28, 1966)

## FEDERAL STANDARD

STANDARD SAFETY DEVICES  
FOR AUTOMOTIVE VEHICLES

*Authority. This standard is issued pursuant to Public Law 88-515, August 30, 1964, (78 Stat. 696) and the Federal Property and Administrative Services Act of 1949, as amended, and its application to the purchase of commodities referred to herein is mandatory on all Federal agencies.*

**S1. Scope of standard.** This standard establishes requirements for safety devices for automotive vehicles purchased by the Federal Government for use by the Federal Government, to achieve the highest practical degree of uniformity and standardization. Specific requirements for a particular safety device are covered by the applicable detailed standard (see S4).

**S2. Definitions and application.****S2.1 Definitions.**

**S2.1.1** The term "automotive vehicle" means any vehicle, self-propelled or drawn by mechanical power, designed for use on the highways, except any vehicle designed for military field training use, combat, or tactical purposes. This definition includes sedans, buses, carryalls, station wagons, and light trucks up to 10,000 pounds gross vehicle weight (G.V.W.).

**S2.1.2** The term "Federal Government" includes the legislative, executive, and judicial branches of the Government of the United States, and the Government of the District of Columbia.

**S2.1.3 Federal agency.** The term "Federal agency" means any executive agency or any establishment in the legislative or judicial branch of the Government (except the Senate, the House of Representatives, and the Architect of the Capitol and any activities under his direction).

**S2.2 Application.** Sedans, buses, carryalls, and station wagons as specified in pro-

curement documents used by the Federal Government, and light trucks up to 10,000 pounds G.V.W. as specified in procurement documents used by Federal agencies, shall be equipped with safety devices as specified herein. Where the requirements stated in this standard conflict with any requirement in such procurement documents, the requirements of this standard shall govern.

**S3. Safety devices.** Safety devices shall be as specified in the detailed standards (see S4). Publications referenced in the detailed standards form a part of this standard, as applicable; the publications referred to are the issues in effect on the date of the publication of this standard in the Federal Register.

**S4. Detailed standards.** Detailed standards for safety devices identified by the sequentially numbered series 515/1, 515/2, etc., are a part of this standard.

**S5. Provision for changes in the standard.** Section 4 of Public Law 88-515 provides for the possibility of changes in the standard first established under Section 2 of that Act. Any person, firm, or organization wishing to propose a change in this standard after it is prescribed shall submit the detailed proposal to the Commissioner, Federal Supply Service, General Services Administration, Washington, D. C., 20405. If this standard as first established is thereafter changed, the changes shall take effect one year and ninety days after the date of publication of such changes in the Federal Register.



**Fed. Std. No. 515/1**

June 30, 1965

(Effective September 28, 1966)

**FEDERAL STANDARD****ANCHORAGES FOR SEAT BELT ASSEMBLIES  
FOR AUTOMOTIVE VEHICLES**

*Authority. This standard is issued pursuant to Public Law 88-515, August 30, 1964, (78 Stat. 696) and the Federal Property and Administrative Services Act of 1949, as amended, and its application to the purchase of commodities referred to herein is mandatory on all Federal agencies.*

**S1. Purpose and scope.** This standard establishes the requirements and test procedures for anchorages for seat belt assemblies for automotive vehicles. This standard does not cover seat belt assemblies.

**S2. Application.** This standard applies to sedans, buses, carryalls, station wagons, and light trucks up to 10,000 pounds G.V.W. Excluded are stand-up, walk-in package delivery vehicles with tilt type drivers' seats. Excluded are folding jump seats that are folded directly behind the front seat. Also excluded are bus passenger seats without built-in padded head rests.

(Note: Specifications for padding of head rests or grab rails on bus seats will be prescribed in procurement documents used by Federal agencies pending issuance of a Federal Standard on seat construction.)

**S3. Standard characteristics.****S3.1 Definitions.**

**S3.1.1 Anchorage.** A seat belt anchorage shall consist of a threaded hole, an eyebolt, or other suitable means of attachment and shall be situated in a suitable structure to receive the seat belt attachment fittings.

**S3.1.2 Attachment fittings.** Attachment fittings are the parts necessary to attach the seat belt assembly to the vehicle structure.

**S3.1.3 Seat belt assembly.** A seat belt assembly is any strap, webbing, or similar device designed to secure a person in an automotive vehicle with the intention of miti-

gating the results of a traffic accident, including all buckles or other fasteners, and all hardware designed for installing the assembly in an automotive vehicle. The seat belt assemblies intended for installation in the anchorages specified hereinafter are described in Fed. Spec. JJ-B-185 and Society of Automotive Engineers, Inc., (SAE) Standard for Motor Vehicles Seat Belt Assemblies, J4.

**S3.1.3.1 Type 1 seat belt assembly.** A type 1 seat belt assembly is a lap belt for pelvic restraint.

**S3.1.3.2 Type 2 seat belt assembly.** A type 2 seat belt assembly is a combination of pelvic and upper torso restraints.

**S3.1.3.3 Type 2a seat belt assembly.** A type 2a seat belt assembly is a shoulder belt for upper torso restraint for use only in conjunction with a type 1 lap belt.

**S3.2 Anchorages.** The SAE Recommended Practice for Motor Vehicle Seat Belt Anchorage, J787, forms a basis, in part for this Federal Standard.

**S3.2.1 General.** Anchorages shall be provided for type 1 seat belt assemblies for each occupant for which a seat is designed, and anchorages for type 2 or type 2a seat belt assemblies shall be provided for at least each outboard front seat occupant for which the vehicle is designed. Where a threaded anchorage is used, the threads shall be 7/16—20 UNF—2B except that the threads for

## Fed. Std. No. 515/1

outboard anchorages for the upper torso restraint portion for types 2 and 2a seat belt assemblies shall be 3/8—16 UNC—2B or larger. Where an eyebolt anchorage is used, the eyebolt shall conform to the applicable requirements of JJ-A-530. All threads shall be in accordance with the applicable requirements of the National Bureau of Standards Handbook H28. The location of the anchorages shall be determined with the seat in its rearmost limit of travel.

**S3.2.2 Anchorages for types 2 and 2a seat belt assemblies (front seat only).** Except for buses and vinyl or canvas top or bolted-on metal enclosure vehicles, automotive vehicles covered by this standard shall be provided with anchorages for a type 2 or 2a seat belt assembly for at least each outboard front seat occupant for which the vehicle is designed. For buses, only the drivers' seat need be provided with anchorages for types 2 and 2a seat belt assemblies. At least three anchorages shall be provided for each type 2 or 2a seat belt assembly; two anchorages for the lap portion of a type 2 seat belt assembly and at least one anchorage for the upper torso or shoulder portion of a type 2 or 2a seat belt assembly. The upper end of the upper torso or shoulder portion of the type 2 or 2a seat belt assembly may be fastened to either the seat, side anchorage, rear anchorage, or floor provided that the seat or other structure over which the belt passes or to which it is fastened has been designed or reinforced to withstand the resulting load. The lower end may be fastened either to the lap portion of the belt or to the existing inboard anchorage for the lap portion of the seat belt assembly.

**S3.2.2.1 Anchorages for the lap portion of seat belt assemblies (front seat only).** Anchorages for the lap portion of front seat belt assemblies shall be provided, as applicable, for each occupant for which the vehicle front seat is designed. A common anchorage may be provided for one end of a type 1 center belt, the inboard end of the

outboard lap portion and the inboard end of the upper torso or shoulder restraint portion of the types 2 and 2a seat belt assemblies or for the inboard ends of two outboard lap belts and the inboard ends of the upper torso or shoulder restraint portion of the type 2 or 2a seat belt assemblies. The outboard anchorages for multioccupant seats or both anchorages for a single occupant seat may be located to permit the lap portion of the seat belt assembly to pass around the outside of the seat.

**S3.2.2.1.1 Location.** The location of anchorages for type 1 seat belt assemblies or the lap portion of type 2 seat belt assemblies shall be such that a line from the anchorage to the passengers' "hip" point will make an angle from the horizontal as near as practicable to 45°, as shown in figures 1, 2, and 3. The hip point is the point on the manikin defined as the "H" point in SAE Standard, Manikins for Use in Defin-

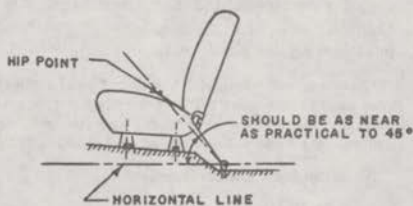


FIGURE 1. Belt outside seat or through seat springs

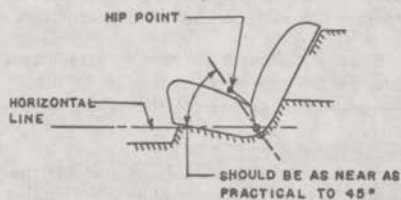


FIGURE 2. Rear seat belt installation



## Fed. Std. No. 515/1

ing Vehicle Seating Accommodations, J826. The location of the hip point shall be determined by following the procedure in SAE J826. Anchorages for belts that will be installed over the seat bottom frame rear bar shall be rearward of a vertical line through the point where the belt will enter the seat, as shown in figure 4. All anchorages shall be spaced laterally so that the lap portion of the belt essentially forms a U-shaped loop when in use. The same anchorage shall not be used for both ends of a single type 1 seat belt assembly or the lap portion of a single type 2 seat belt assembly.

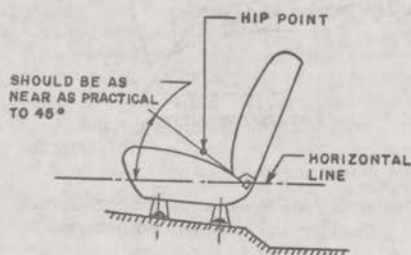


FIGURE 3. Belt attached to seat frame

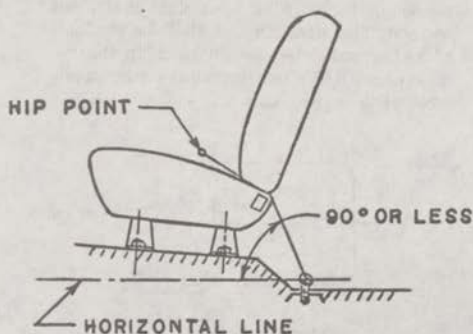


FIGURE 4. Belt over seat crossbar

**S3.2.2.2 Anchorages for the upper torso or shoulder portion of seat belt assemblies.** Anchorages for the upper torso or shoulder portion of a type 2 or 2a seat belt assembly shall be provided for at least each outboard front seat occupant for which the vehicle is designed. These anchorages shall be located in an area behind a vertical line from the shoulder point of an SAE manikin with the seat back in its nominal design position and the seat in its extreme rear position. The downward angle of the belt passing from the shoulder of an SAE manikin to an anchorage, or over suitable structure to an anchorage, shall be not more than 40° from the horizontal.

**S3.2.3 Anchorages for the lap portion of seat belt assemblies (intermediate and rear seats).** Automotive vehicles covered by this standard shall be provided with anchorages for the lap portion of seat belt assemblies for all intermediate and rear seats. Anchorages shall be provided for each occupant for which the seat is designed. A common anchorage may be provided for one end of a center belt and the inboard end of an outboard belt, or the inboard ends of two outboard belts. The outboard anchorage for multioccupant seat or both anchorages for a single occupant seat may be located to permit the belt to pass around the outside of the seat. The location of anchorages for the lap portion of seat belt assemblies shall conform to S3.2.2.1.1.

**S3.2.4 Strength.** The vehicle structure shall sustain the simultaneous pull on each set of seat belt assemblies for each passenger for which the seat is designed. Permanent deformation of any anchorage or surrounding area is acceptable provided there is no rupture or breakage and the anchorage does not pull loose.

**S3.2.4.1 Anchorages for type 2 and type 2a seat belt assemblies.** The outboard anchorage for the lap belt portion of a type 2 seat belt assembly shall sustain a pull of 2,500 pounds. Outboard anchorages for the

### Fed. Std. No. 515/1

upper torso or shoulder restraint portion of a type 2 or 2a seat belt shall sustain a pull of 1,500 pounds for each anchorage. Common anchorages for the inboard ends of types 1 and 2a seat belt combination or the inboard anchorage of a type 2 seat belt assembly shall sustain a pull of 3,000 pounds. Common anchorages for one end of a center lap belt and either the inboard end of a type 1 seat belt or the lap belt portion of a type 2 seat belt and the inboard end of an upper torso or shoulder restraint shall sustain a pull of 5,500 pounds. A common anchorage for the inboard ends of two outboard lap belts and inboard ends of the upper torso or shoulder restraint portion of the types 2 and 2a seat belt assemblies shall sustain a pull of 6,000 pounds.

**S3.2.4.2 Anchorages for type 1 seat belt assemblies.** Except for buses, anchorages for type 1 seat belt assemblies shall sustain a pull of 2,500 pounds for each lap belt end attached.

**S3.2.4.2.1 Anchorages for type 1 seat belt assemblies for buses.** Anchorages for type 1 seat belt assemblies, except for the driver's seat, shall sustain a pull of 1,500 pounds for each lap belt end attached. Anchorages for the driver's seat shall conform to S3.2.4.1, as applicable.

**S3.2.4.3 Anchorages for seat belt assemblies attached to the seat frame.** The seat structure, the seat adjusters, if applicable, and the attachments, shall sustain the load specified in S3.2.4.1, S3.2.4.2, and S3.2.4.2.1, as applicable, for each seat belt end attached to the seat plus the seat inertia force. The seat inertia force shall be 20 times the seat weight. Floor and seat deformation is acceptable provided there is no structural failure or release of the seat adjuster mechanism.

**S3.2.5 Test procedure.** The strength test shall be conducted either with the connection from the body block to the anchorages made in the manner in which the belts are installed or a suitable equivalent method. The load shall be applied to the body block at an angle of  $10^\circ \pm 5^\circ$  from the horizontal. As applicable, the doors of the vehicle may be closed during the test.

**S3.2.5.1 Test for types 2 and 2a seat belt anchorages.** The loads specified in S3.2.4.1 shall be applied using either a body block set up similar to that shown in figure 5 or a suitable equivalent method. The strength test shall be conducted with the seat in place in the vehicle.

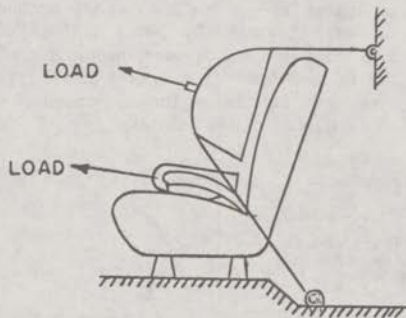


FIGURE 5. Body block set up for combination shoulder and lap belt anchorages

**S3.2.5.2 Test for type 1 seat belt anchorages.** The load specified in S3.2.4.2 or S3.2.4.2.1, as applicable, shall be applied using either a body block similar to that shown in figure 6 or a suitable equivalent method. The strength test shall be conducted either with the seat in place in the vehicle or with the seat installed on an applicable vehicle floor pan.

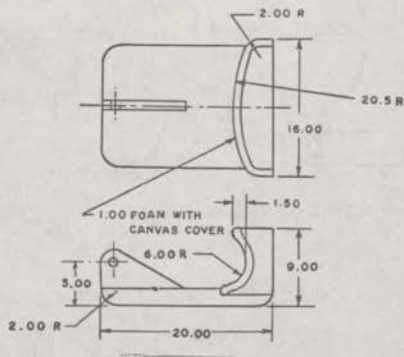


FIGURE 6. Body block for lap belt anchorages



**Fed Std. No. 515/2**

June 30, 1965

(Effective September 28, 1966)

**FEDERAL STANDARD****PADDED INSTRUMENT PANEL AND VISORS FOR  
AUTOMOTIVE VEHICLES**

*Authority. This standard is issued pursuant to Public Law 88-515, August 30, 1964, (78 Stat. 696) and the Federal Property and Administrative Services Act of 1949, as amended, and its application to the purchase of commodities referred to herein is mandatory on all Federal agencies.*

**S1. Purpose and scope.** This standard establishes requirements and test procedures for automotive vehicle instrument panel and sun visors designed to afford a reasonable degree of head protection in the event of a collision for front seat passengers wearing type 1 seat belt assemblies.

**S2. Application.** This standard applies to sedans, carryalls, station wagons, and light trucks up to 10,000 pounds G.V.W. This standard does not apply to that portion of the instrument panel directly in front of the steering wheel or to vehicles without a front passenger seat.

**S3.** The instrument panel including the padding assembly shall not contain any sharp or protruding rigid edges in the head impact area. The head impact area shall be determined by the use of an SAE two dimensional 50th percentile male manikin in midseat position wearing a type 1 seat belt assembly. The panel below the windshield

shall be covered, at least in the impact area determined by the manikin, with energy absorbing cushioning material to cushion and spread the impact of a passenger's head. The structure of the instrument panel with padding in the impact area shall be designed to reduce the likelihood of injury to the passenger's head upon impact. For sedans and station wagons and when using the SAE Recommended Practice for Instrument Panel Laboratory Impact Test Procedure, J921, the deceleration of the head form upon impact at 22 feet per second shall not exceed an effective maximum value of 80 g.'s in 60 milliseconds which value shall exclude all portions of the deceleration time curve of less than 3 milliseconds duration.

**S3.1** The sun visors shall be constructed of or be covered by energy absorbing cushioning material. The sun visor mountings shall be designed and located to provide a reasonable degree of head protection.

Fed. Std. No. 515/3

June 30, 1965

(Effective September 28, 1966)

FEDERAL STANDARD

**RECESSED INSTRUMENT PANEL INSTRUMENTS  
AND CONTROL DEVICES FOR AUTOMOTIVE  
VEHICLES**

*Authority. This standard is issued pursuant to Public Law 88-515, August 30, 1964, (78 Stat. 696) and the Federal Property and Administrative Services Act of 1949, as amended, and its application to the purchase of commodities referred to herein is mandatory on all Federal agencies.*

**S1. Purpose and scope.** This standard establishes the location and identification of automotive vehicle instruments and control devices to afford a reasonable degree of protection in event of a collision for front seat occupants wearing type 1 seat belt assemblies with seat in middle position. Occupant protection shall be determined by using an SAE two dimensional 50th percentile male manikin.

**S2. Application.** This standard applies to sedans, carryalls, station wagons, and light trucks up to 10,000 pounds G.V.W. Excluded are stand-up walk-in package delivery vehicles with tilt type drivers' seats.

**S3. Requirements.** Injury potential shall be minimized by constructing, locating, or mounting control devices and instrument bezels in such a manner as to reasonably minimize contact by the head of belted occupants. Injury potential shall be minimized by the following means:

**S3.1 Location, construction, and mounting.**

**S3.1.1** All instrument panel mounted instruments and control devices shall be located within reach of the driver wearing a type 1 seat belt assembly with seat in middle driving position, except instruments and controls not essential to controlling a moving vehicle. Essential controls shall be readily identifiable.

**S3.1.2** Control devices and instruments

not located in front of the steering wheel, but positioned in such a manner to reasonably minimize the likelihood of contact by the head of the belted driver and/or other belted occupants, shall be considered to provide a reasonable degree of protection.

**S3.1.3** Control devices not meeting S3.1.2 and likely to be contacted by the head of a belted occupant shall have a contact area of not less than 1.0 square inch of flat surface with an edge radius of not less than 0.125 inch and shall be mounted and constructed of materials which will deflect flush within 0.375 inch of the panel surface or be mounted in such a manner as to allow them to be pushed flush with the panel surface or be detached by the application of a force not to exceed 90 pounds when struck in a plane determined by the use of an SAE two dimensional 50th percentile male manikin.

**S3.1.4** Instrument bezels not meeting S3.1.2 and S3.1.3 and likely to be contacted by the head of a belted occupant shall have an edge radius of not less than 0.125 inch and shall project not more than 0.250 inch above the surface of the panel or shall be shielded as to reasonably minimize contact by the head of belted occupant.

**S3.1.5** The steering column transmission selector level end shall have a cross-sectional projected area perpendicular to the lever of not less than 1.0 square inch and an edge radius of not less than 0.125 inch.



**Fed. Std No. 515/4**

June 30, 1965

(Effective September 28, 1966)

## FEDERAL STANDARD

**IMPACT ABSORBING STEERING WHEEL AND  
COLUMN DISPLACEMENT FOR AUTOMOTIVE  
VEHICLES**

*Authority. This standard is issued pursuant to Public Law 88-515, August 30, 1964, (78 Stat. 696) and the Federal Property and Administrative Services Act of 1949, as amended, and its application to the purchase of commodities referred to herein is mandatory on all Federal agencies.*

**S1. Purpose and scope.** This standard establishes requirements for impact absorbing steering wheels and steering columns installed on automotive vehicles.

**S2. Application.** This standard applies to sedans and station wagons.

**S3. Standard characteristics.** The SAE Recommended Practice for Barrier Collision Tests, J850, forms the basis for section S3.2 of this standard.

**S3.1** The steering wheel assembly shall be so constructed that when it is impacted at a relative velocity of 22 feet per second with a torso shaped body block as shown in figure 1, weighing 75-80 pounds, and having a spring rate load of 600-800 pounds, the force developed during collapse of the wheel shall not exceed 2,500 pounds. The spring rate is determined by loading the chest of the torso shaped body block with a 4-inch wide flat contact surface so that it is 90° to the longitudinal axis of the body block, parallel to the backing plate and within 15 to 20 inches from the top of the head form. The load is measured when the flat contact surface has moved down 1/2 inch, and

the spring rate is determined by doubling this load figure.

**S3.1.1** The load cell recording device shall be of the type shown in figure 2 and shall be mounted directly behind the wheel, with its axis of primary sensitivity in the direction of body block travel just prior to impact. The steering wheel shall be mounted to the load cell by means of an appropriate nose piece at the same angle as it is to be installed in the vehicle.

**S3.2** Other testing methods, such as high capacity acceleration facilities and anthropometric dummies, giving equivalent results, may be utilized in lieu of methods defined in S3.1 and S3.1.1.

**S3.3** The steering column shall be so designed that when the front structure of the automotive vehicle collapses during the SAE J850 barrier collision test at 20 miles per hour, the upper end of the steering column shall not be displaced rearward, relative to an undisturbed point to the rear of the steering wheel position, more than 5 inches.

**S3.3.1** The rearward displacement of the steering column shall be determined under dynamic conditions during the barrier collision test.

Fed. Std No. 515/4

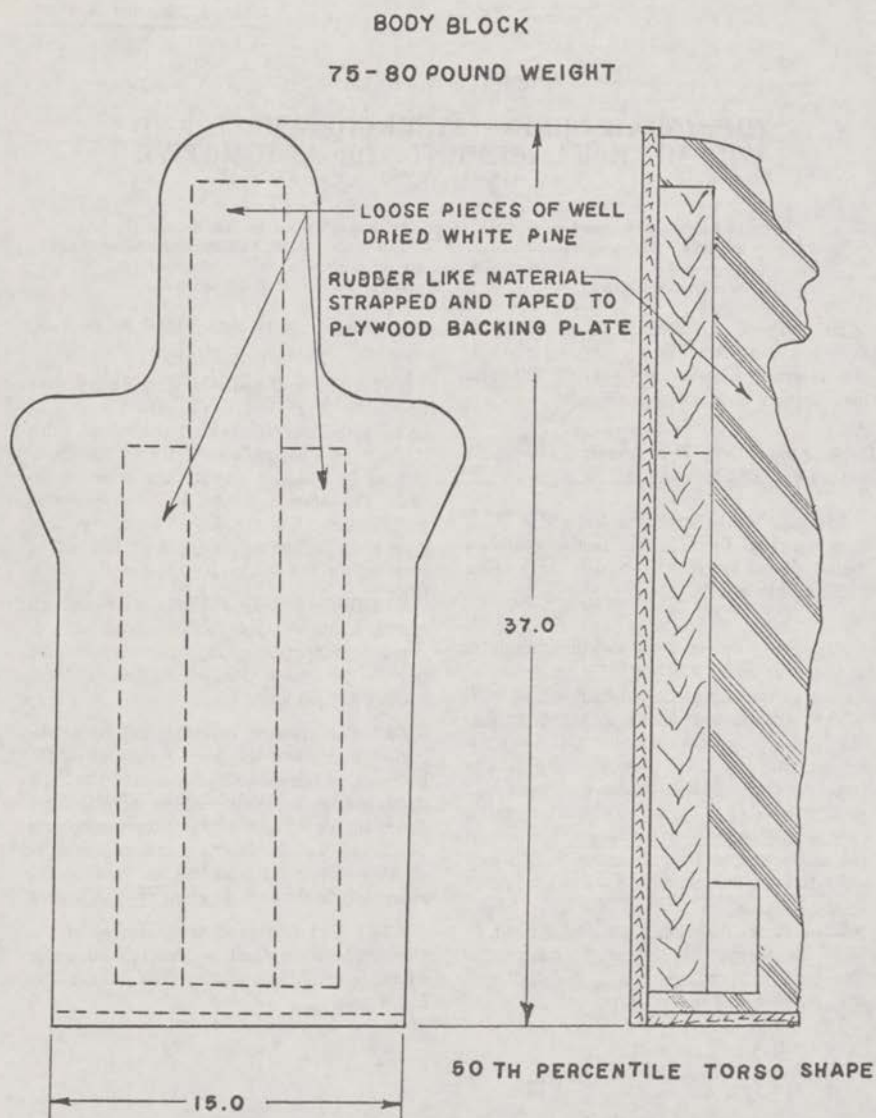
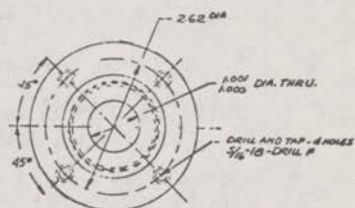
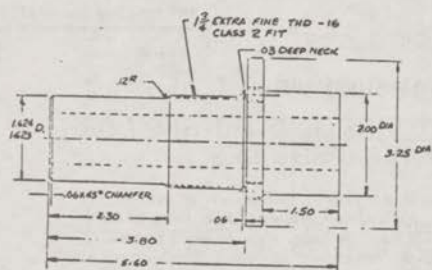


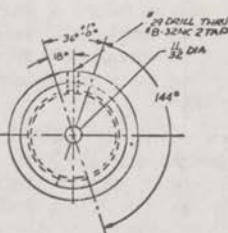
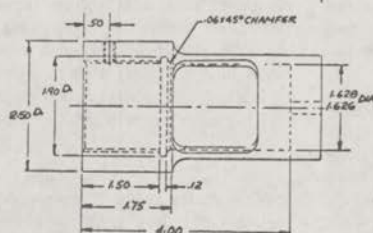
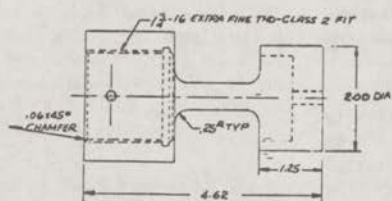
FIGURE 1.



Fed. Std No. 515/4

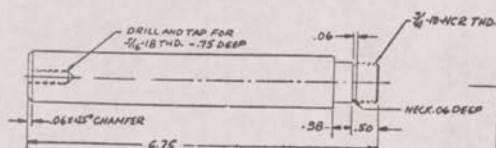


SHAFT RETAINER AND GASE ARM HOLDER  
374 - 1020



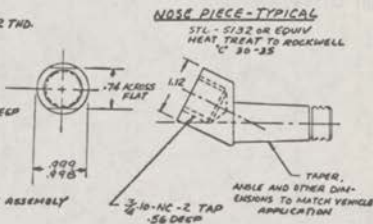
### TENSION ARMS

STL 5132 OR EQUIV  
HEAT TREAT TO  
ROCKWELL C 30-35



**PISTON**

NOTE: APPLY DRY MOLYBDENUM DISULFIDE TO SHAFT BEFORE ASSEMBLY



NOSE PIECE-TYPICAL

STL - 5132 OR EQUIV  
HEAT TREAT TO ROCKWELL  
C 30-35

TAPER,  
ANGLE AND OTHER DIM-  
ENSIONS TO MATCH VEHICLE  
APPLICATION

FIGURE 2.

Fed. Std. No. 515/5

June 30, 1965

(Effective September 28, 1966)

## FEDERAL STANDARD

SAFETY DOOR LATCHES AND HINGES FOR  
AUTOMOTIVE VEHICLES

*Authority. This standard is issued pursuant to Public Law 88-515, August 30, 1964, (78 Stat. 696) and the Federal Property and Administrative Services Act of 1949, as amended, and its application to the purchase of commodities referred to herein is mandatory on all Federal agencies.*

**S1. Purpose and scope.** This standard establishes uniform test procedures and minimum static load requirements for automotive vehicle side door latches and hinges.

**S2. Application.** This standard applies to sedans, carryalls, station wagons, and light trucks up to 10,000 pounds G.V.W., except those light trucks with folding or cargo type doors or open body trucks with enclosures made of canvas, aluminum, fiber glass, and steel. The secondary latch load does not apply to sliding doors.

**S3. Requirements.** All applicable automotive vehicles purchased by the Federal Government shall be equipped with safety door latches and hinges. The hinges shall have ample strength to support the door and to withstand the longitudinal load and transverse load equal to or greater than that specified in S3.1 and S3.2 for the door latch and striker assembly.

**S3.1 Longitudinal load.** Automotive vehicle door latch and striker assembly, when tested as described under test procedures, shall be able to withstand a minimum longitudinal load of 2,500 pounds when in the fully latched position (see S3.3).

**S3.2 Transverse load.** Automotive vehicle door latch and striker assembly, when tested as described under test procedures, must be able to withstand a minimum transverse load of 1,700 pounds when in the fully latched position and 500 pounds when in the secondary latch position (see S3.3).

**S3.3 Static tests.** Test procedures including test fixtures shall be conducted in accordance with section 4 of SAE Recommended Practice for Passenger Car Side Door Latch Systems, J839.



## Fed. Std. No. 515/6

June 30, 1965

(Effective September 28, 1966)

## FEDERAL STANDARD

## ANCHORAGE OF SEATS FOR AUTOMOTIVE VEHICLES

*Authority. This standard is issued pursuant to Public Law 88-515, August 30, 1964, (78 Stat. 696) and the Federal Property and Administrative Services Act of 1949, as amended, and its application to the purchase of commodities referred to herein is mandatory on all Federal agencies.*

**S1. Purpose and scope.** This standard establishes requirements for strength and anchorage of automotive vehicle seat assemblies.

**S2. Application.** This standard applies to sedans, buses, carryalls, station wagons, and light trucks up to 10,000 pounds G.V.W. Excluded are stand-up, walk-in package delivery vehicles with tilt type drivers' seats.

**S3. Standard characteristics.** The SAE Recommended Practice for Passenger Car Front Seat and Front Seat Adjuster, J879, forms a basis for that part of this standard which applies to front seats.

**S3.1 Definitions.**

**S3.1.1 Automotive vehicle seat.** A structure provided to seat the driver and passengers.

**S3.1.2 Seat frame.** The structural portion of a seat assembly. The frame may be constructed with springs directly attached or with springs attached as a separate assembly for installation on a seat frame member.

**S3.1.3 Seat back frame upper crossbar.** The uppermost horizontal member of a seat back frame.

**S3.1.4 Seat adjuster.** A device suitably anchored to the vehicle structure which supports the seat frame assembly and provides for seat adjustments. This includes any track, link, or power actuating assemblies necessary to adjust the position of the seat.

**S3.2 Requirements, front seats.**

**S3.2.1 Seat adjusters and seat frame combinations.** Each combination of seat adjuster and seat frame, together with its attachments, shall be constructed and anchored to the vehicle structure which supports it in such a manner as to sustain a horizontal forward and rearward static load equal to a minimum of 20 times the weight of the fully trimmed seat.

**S3.2.2 Seat cushion and back frame combination.** Each seat cushion and back frame combination, together with its attachments, shall be constructed and anchored to the vehicle structure which supports it in such a manner as to sustain a rearward static moment about the rear attachment of the seat frame to the seat adjuster of 4,250 inch pounds for each passenger for which the seat back is designed. The load required to obtain this moment shall be applied to the seat back upper crossbar location normal to the seat back.

(Note: Some energy absorption under impact can be obtained through deflection of the seat back. Therefore, some deflection and permanent set of the seat back consistent with rigidity requirements and normal occupant accommodations, is desirable.)

**S3.3 Requirements, rear seats.**

**S3.3.1 Rear seat backs and seat cushions.** Each rear seat back and seat cushion designed to provide rear passenger seating in sedans shall be constructed and anchored to the vehicle structure which supports it in

## Fed. Std. No. 515/6

such a manner as to sustain a horizontal forward static load equal to a minimum of 20 times the weight of the fully trimmed component.

**S3.4 Requirements, other seats.**

**S3.4.1 Seat frames.** Seat frames designed to be fastened to the vehicle floor without adjustment in sedans, buses, carryalls, and station wagons shall be constructed and anchored to the vehicle structure which supports them, either permanently or by detachable fittings as specified, in such a manner as to sustain a forward and rearward static load equal to 20 times the weight of the fully trimmed seat.

**S3.4.2 Seat back frames.**

**S3.4.2.1 Forward facing seat back frames** designed to provide backs for intermediate seating in sedans and buses and intermediate and rear seating in carryalls and station wagons shall be constructed and anchored, either permanently or by detachable fittings as specified, to the seat frame in such a manner as to sustain a rearward (in relation to the seat) static moment, about the rear attachments of the seat frame to the vehicle structure which supports it, equal to a minimum of 4,250 inch pounds for each passenger for which the seat is designed. The load required to obtain this moment shall be applied to the seat back upper crossbar location normal to the seat back (see note in S3.2.2).

**S3.4.2.2 Rearward facing seat back frames** designed to provide backs for rear seating in station wagons shall be constructed and anchored, either permanently or by detachable fittings as specified, to the seat frame in such a manner as to sustain a rearward (in relation to the seat) static load equal to a minimum of 4,250 inch pounds for each passenger for which the seat is designed. The load required to obtain this moment shall be applied to the seat back upper crossbar location normal to the seat back (see note in S3.2.2).

**S3.4.2.3 Longitudinally mounted seats** in station wagons, and when specified for installation in trucks, shall be constructed and anchored, either permanently or by detach-

able fittings as specified, to the vehicle structure which supports them in such a manner as to sustain a forward and rearward (in relation to the vehicle) static load equal to 20 times the weight of the fully trimmed seat.

**S3.5 Seats designed to provide seat belt anchorage.**

**S3.5.1 Sedans, carryalls, station wagons, and light trucks up to 10,000 pounds G.V.W.** Seat frames and seat back frames designed to provide anchorages for seat belts shall be constructed and anchored to the vehicle structure which supports them in such a manner as to sustain an additional forward static load equal to a minimum of 2,500 pounds for each lap belt end attached or 3,000 pounds for each combination lap and shoulder belt end attached.

**S3.5.2 Buses.**

**S3.5.2.1 Driver's seat.** Driver's seat frames and seat back frames designed to provide anchorages for seat belts shall be constructed and anchored to the vehicle structure which supports them in such a manner as to sustain an additional forward static load equal to a minimum of 2,500 pounds for each lap belt end attached, or 3,000 pounds for each combination lap and shoulder belt end attached.

**S3.5.2.2 Passenger seats.** Passenger seat frames and seat back frames designed to provide anchorages for seat belts shall be constructed and anchored to the vehicle structure which supports them in such a manner as to sustain an additional forward static load equal to a minimum of 1,500 pounds for each lap belt end attached.

**S3.6 Test procedure.** Testing of front seats shall be in accordance with the procedures set forth in SAE Recommended Practice J879. Testing of intermediate and rear seats shall be accomplished by applying similar procedures. Testing of seats designed to provide seat belt anchorage shall be in accordance with applicable procedures set forth in S3.2.5 of Fed. Std. No. 515/1.



**Fed. Std. No. 515/7**

June 30, 1965

(Effective September 28, 1966)

**FEDERAL STANDARD****FOUR WAY FLASHER FOR AUTOMOTIVE  
VEHICLES**

*Authority. This standard is issued pursuant to Public Law 88-515, August 30, 1964, (78 Stat. 696) and the Federal Property and Administrative Services Act of 1949, as amended, and its application to the purchase of commodities referred to herein is mandatory on all Federal agencies.*

**S1. Purpose and scope.** This standard establishes a driver controlled automotive vehicle hazard warning signal light system which will cause all turn signal lamps to flash simultaneously to indicate to the approaching drivers the presence of a vehicular hazard.

**S2. Application.** This standard applies to sedans, buses, carryalls, station wagons, and light trucks up to 10,000 pounds G.V.W.

**S3. Requirements.** Components and tests for this standard shall conform to SAE

Recommended Practice for Vehicular Hazard Warning Signal Operating Unit, J910, except that the flasher shall be tested in accordance with SAE Recommended Practice J590 modified as follows:

*Life test requirement:* With maximum lamp load to be used on the vehicle, the flasher shall be subjected to a test of 50 hours duration during which the flasher shall be operated for 12 hours, allowed to rest for 40 minutes, and this cycle repeated for the remainder of the test period.

Fed. Std. No. 515/8

June 30, 1965

(Effective September 28, 1966)

## FEDERAL STANDARD

## SAFETY GLAZING MATERIALS FOR AUTOMOTIVE VEHICLES

*Authority. This standard is issued pursuant to Public Law 88-515, August 30, 1964, (78 Stat. 696) and the Federal Property and Administrative Services Act of 1949, as amended, and its application to the purchase of commodities referred to herein is mandatory on all Federal agencies.*

**S1. Purpose and scope.** This standard establishes requirements for safety glazing for automotive vehicles.

**S2. Application.** This standard applies to sedans, buses, carryalls, station wagons, and light trucks up to 10,000 pounds G.V.W.

**S3. Standard characteristics.** Safety glass used in the windshields, windows, doors, or any other glazed openings in vehicles covered by this standard shall conform to the requirements contained in the American Standards Association, Inc., American Standard Safety Code for Safety Glazing Materials for Glazing Motor Vehicles Operating on Land Highways, Z26.1. Windshields shall be glazed with laminated safety glass.

**S3.1 Buses.** Windshields, windows, doors, or any other openings where glazing is used in buses covered by this standard shall, in addition to S3, conform to the requirements contained in the Interstate Commerce Commission Motor Carrier Safety Regulations, 49 CFR 193.60-193.63.

**S3.1.1 School buses.** Windshields, windows, doors, or any other openings where glazing is used in school buses covered by this standard shall, in addition to S3 and S3.1, conform to the requirements contained in the National Education Association Minimum Standards for School Buses. Where inconsistencies may occur with S3.1, the Interstate Commerce Commission Motor Carrier Safety Regulations, 49 CFR 193.60-193.63 shall govern.



Fed. Std. No. 515/9

June 30, 1965

(Effective September 28, 1966)

## FEDERAL STANDARD

DUAL OPERATION OF BRAKE SYSTEM FOR  
AUTOMOTIVE VEHICLES

*Authority. This standard is issued pursuant to Public Law 88-515, August 30, 1964, (78 Stat. 696) and the Federal Property and Administrative Services Act of 1949, as amended, and its application to the purchase of commodities referred to herein is mandatory on all Federal agencies.*

**S1. Purpose and scope.** This standard establishes requirements for hydraulic brake systems installed on automotive vehicles.

**S2. Application.** This standard applies to sedans, buses, carryalls, station wagons, and light trucks up to 10,000 pounds G.V.W.

**S3. Standard characteristics.** The National Committee on Uniform Traffic Laws and Ordinances, Uniform Vehicle Code, forms the basis for this standard.

**S3.1 Service brake system performance.** The performance ability of the fully operational service brake system shall be not less than described in Section 12-302 of the Uniform Vehicle Code.

**S3.1.1 Design.** The service brake system shall be of such design that rupture or failure of an actuating-pressure component in the system shall not result in complete loss of function of the service brake system. Ac-

tuating-pressure components are defined as, the brake master cylinder or master control unit, wheel brake cylinder, brake line, brake hose or equivalent, as applicable.

**S3.1.2 Partial system performance.** In the event of rupture or failure of an actuating-pressure component to any single brake, the components of the unaffected system shall continue to function.

**S3.2 System effectiveness indication.** This shall be indicated by means of an electrically operated red light mounted on the instrument panel. The light shall have an area of not less than 0.196 square inch. It shall illuminate before or upon application of the brakes when an actuating-pressure component of the system has sustained a loss of fluid or pressure. The indicator light shall include an independent means for the vehicle operator to perform a test to assure the light bulb is operable.

Fed. Std. No. 515/10

June 30, 1965

(Effective September 28, 1966)

## FEDERAL STANDARD

STANDARD BUMPER HEIGHTS FOR  
AUTOMOTIVE VEHICLES

*Authority. This standard is issued pursuant to Public Law 88-515, August 30, 1964, (78 Stat. 696) and the Federal Property and Administrative Services Act of 1949, as amended, and its application to the purchase of commodities referred to herein is mandatory on all Federal agencies.*

**S1. Purpose and scope.** This standard establishes heights for contact surfaces of front and rear bumpers and/or guards for automotive vehicles.

**S2. Application.** This standard applies to sedans and station wagons.

**S3. Standard characteristics.** When loaded, front and rear bumpers and/or guards shall present a contact line between treads within a 1-inch band enclosed between the heights of 17 and 18 inches above the road level. A loaded vehicle is defined as the curb weight of a vehicle including all accessories, plus the addition of 150 pounds for each passenger distributed as two passengers in the front seat and one passen-

ger in the rear seat. In vehicles having hydro-pneumatic, hydraulic, air pressure suspension, or automatic load leveling devices, the contact heights shall be applicable when the engine is in operation.

**S3.1 Bumpers and/or guards** shall be so constructed so as to extend beyond the projection of any lights to provide protection against damage in connection with vehicle to vehicle contact in parking operations. Compliance with this requirement may be determined by contacting a vertical surface with the exterior face of the bumpers and/or guards, and assuring that no contact is made between any lamp and the vertical surfaces.



**Fed. Std. No. 515/11**

June 30, 1965

(Effective September 28, 1966)

**FEDERAL STANDARD****STANDARD GEAR QUADRANT (P R N D L) FOR  
AUTOMOTIVE VEHICLES EQUIPPED WITH  
AUTOMATIC TRANSMISSIONS**

*Authority. This standard is issued pursuant to Public Law 88-515, August 30, 1964, (78 Stat. 696) and the Federal Property and Administrative Services Act of 1949, as amended, and its application to the purchase of commodities referred to herein is mandatory on all Federal agencies.*

**S1. Purpose and scope.** This standard establishes the requirements for the manual control sequence of shifting mechanisms for automatic transmissions installed in automotive vehicles.

**S2. Application.** This standard applies to sedans, carryalls, station wagons, and light trucks up to 10,000 pounds G.V.W.

**S3. Standard characteristics.** The progressive sequence of the manual control mechanism shall be reverse drive position, neutral position, and forward drive position. Drive positions may have more than one selector designation or position. Neutral shall be positioned between forward drive and reverse drive positions. In no case shall any forward drive be adjacent to any reverse drive position.

**S3.1 Low forward drive braking effect.**

When selected and engaged, the lowest forward drive position shall provide a braking effect upon deceleration and the transmission shall be so designed that automatic up-shift through the transmission range is blocked effectively for all speeds and loads within the speed range up to and including 25 miles per hour.

**S3.2 Park position.** The transmission manual control sequence mechanism may be provided with a park position. When so provided and engaged, it shall initiate a positive lock for the purpose of preventing the drive wheels of the vehicle from moving. Within the quadrant, the park position shall be located at the end of the sequence, adjacent to the reverse drive position.

Fed. Std. No. 515/12

June 30, 1965

(Effective September 28, 1966)

## FEDERAL STANDARD

WINDSHIELD WIPERS AND WASHERS FOR  
AUTOMOTIVE VEHICLES

*Authority. This standard is issued pursuant to Public Law 88-515, August 30, 1964, (78 Stat. 696) and the Federal Property and Administrative Services Act of 1949, as amended, and its application to the purchase of commodities referred to herein is mandatory on all Federal agencies.*

**S1. Purpose and scope.** This standard establishes test procedures and minimum performance requirements for automotive vehicle windshield wiping and washing systems.

**S2. Application.** This standard applies to sedans, buses, carryalls, station wagons, and light trucks up to 10,000 pounds G.V.W., with fixed type windshields.

**S3. Requirements.** The windshield wiper system shall be driven by a motor, actuated by a conveniently located control by which the operator of the vehicle may vary the frequency speed of the wipers. The windshield wiper system shall be designed to provide two or more frequency speeds and each frequency speed shall be constant regardless of engine load. Windshield wiper systems designed to interrupt at the end of each frequency cycle by means of a timing

device will be acceptable if the timing device can be varied to provide continuous operation and two or more frequencies of interrupted operation. All other windshield wiper requirements shall conform to SAE Recommended Practice for Passenger Car Windshield Wiper Systems, J903.

**S3.1** The windshield washer system shall be provided with a container with a capacity of at least 48 ounces of fluid. The container shall be made of such material that it will not crack or break in the event the fluid becomes frozen. The fluid shall be applied to the outside of the windshield by vacuum or other methods. The washer shall be actuated either manually or automatically.

**S3.2 Tests.** All tests shall conform to SAE Recommended Practice J903.



Fed. Std. No. 515/13

June 30, 1965

(Effective September 28, 1966)

## FEDERAL STANDARD

GLARE REDUCTION SURFACES—INSTRUMENT  
PANEL AND WINDSHIELD WIPERS FOR  
AUTOMOTIVE VEHICLES

*Authority. This standard is issued pursuant to Public Law 88-515, August 30, 1964, (78 Stat. 696) and the Federal Property and Administrative Services Act of 1949, as amended, and its application to the purchase of commodities referred to herein is mandatory on all Federal agencies.*

**S1. Purpose and scope.** This standard establishes glare limits for appearance finishes of instrument panels and windshield wiper components in and adjacent to the operator's field of view to achieve the most practical reduction of distracting reflectance for automotive vehicles.

**S2. Application.** This standard applies to sedans, buses, carryalls, station wagons, and light trucks up to 10,000 pounds G.V.W.

**S3. Standard characteristics.** Standard methods, tentative methods, and tentative recommended practices and the American Society for Testing and Materials, ASTM D 307, D 523, D 791, D 1535, E 97 and the SAE Standard J826, form the basis for this Federal standard.

**S3.1 Definitions.**

**S3.1.1 Field of view.** With the operator's seat in its rearmost position, the operator's field of view is defined as that area forward of a line extending to the sides of the vehicle from the point at which the back pan of the SAE J826 three-dimensional manikin makes contact with the operator's seat back.

**S3.1.2 Glare.** The visual effect of any source of light in the field of view that either dilutes or competes with the central attention signal on which attention is being focused.

**S3.1.3 Specular gloss.** The luminous fractional reflectance of a specimen at the specular direction.

**S3.1.4 Luminous directional reflectance (Munsell value).** Ratio of flux reflected to that from a perfect diffuse reflector similarly illuminated and viewed.

**S3.1.5 Saturation (Munsell chroma).** The attribute of color perception that expresses the degree of departure from gray of the same lightness. All grays have zero saturation.

**S3.2 Instrument panels.** The specular gloss of instrument panel top surfaces and appurtenances thereon which can produce glare in the windshield shall not exceed 30 units maximum, measured by the 85° method of ASTM D 523, or equivalent.

**S3.3 Windshield wiper arms and blades.** The specular gloss of windshield wiper arms and wiper blades in the operator's field of view shall not exceed 40 units maximum, measured by the 20° method of ASTM D 523, or equivalent.

**S3.4 Luminous directional reflectance (Munsell value).** The luminous directional reflectance of instrument panel top surfaces shall not exceed 30 percent (which is equivalent to a Munsell value less than 6.0/-), when measured as described by ASTM D 307, D 791, D 1535, E 97, or equivalent.

**S3.5 Saturation (Munsell chroma).** The Munsell chroma of instrument panel top surfaces shall be not more than /6.

Fed. Std. No. 515/14

June 30, 1965

(Effective September 28, 1966)

## FEDERAL STANDARD

EXHAUST EMISSION CONTROL SYSTEM FOR  
AUTOMOTIVE VEHICLES

*Authority. This standard is issued pursuant to Public Law 88-515, August 30, 1964, (78 Stat. 696) and the Federal Property and Administrative Services Act of 1949, as amended, and its application to the purchase of commodities referred to herein is mandatory on all Federal agencies.*

**S1. Purpose and scope.** This standard establishes vehicular emission control limits for contaminants discharged from gasoline powered automotive vehicle engines through the "tail pipe" or exhausted into the surrounding atmosphere. It does not cover losses such as from the fuel tank, carburetor, and crankcase vents.

**S2. Application.** This standard applies to sedans, carryalls, station wagons, and light trucks up to and including 1/2-ton pickup or equivalent equipped with engines of 130 cubic inch displacement or over.

**S3. Standard characteristics.** The State of California, California Test Procedure and Criteria for Motor Vehicle Exhaust Emission Control, forms the basis for this standard.

**S3.1 Definitions.**

**S3.1.1 Contaminants.** Contaminants are defined as hydrocarbons and carbon monoxide.

**S3.1.2 Hydrocarbons.** Hydrocarbons are defined as the organic constituents of vehicle exhausts measured by a hexane-sensitized nondispersive infrared analyzer or by an equivalent method.

**S3.2** All automotive vehicles covered by this standard shall be equipped with an integral or ancillary control system to provide exhaust emission control of contaminants. The average emission limits shall not exceed:

Hydrocarbons—275 parts per million.

Carbon monoxide—1.5 percent.

**S3.3 Test conditions.**

**S3.3.1** Test procedures for vehicle exhaust emissions and criteria evaluation shall be as specified in the California Test Procedure and Criteria for Motor Vehicle Exhaust Emission Control Manual.



## Fed. Std. No. 515/15

June 30, 1965

(Effective September 28, 1966)

## FEDERAL STANDARD

## TIRES AND SAFETY RIMS FOR AUTOMOTIVE VEHICLES

*Authority. This standard is issued pursuant to Public Law 88-515, August 30, 1964, (78 Stat. 696) and the Federal Property and Administrative Services Act of 1949, as amended, and its application to the purchase of commodities referred to herein is mandatory on all Federal agencies.*

**S1. Purpose and scope.** This standard establishes requirements for tires and safety rims installed on automotive vehicles.

**S2. Application.** This standard applies to sedans, buses, carryalls, station wagons, and light trucks up to 10,000 pounds G.V.W.

**S3. Standard characteristics.** Fed. Spec. ZZ-T-381, SAE Recommended Practice for Passenger Car Tire Performance Requirements, J918, and the recommendations of the Tire and Rim Association, Inc., Year Book (hereinafter cited as "Year Book"), form the basis for this standard. For tires and rims expressed in dimensions of the metric system, the performance requirements as outlined below shall be expressed in the nearest equivalents of inches, pounds, and miles per hour.

**S3.1 Tires.** Automotive vehicles shall be equipped with tires conforming to Fed. Spec. ZZ-T-381.

**S3.1.1 Rated capacity.** Each tire shall have a rated capacity, in accordance with Engineering Guide or Recommended Load of the Year Book, at least equal to the total load on each axle, divided by the number of tires on the axle, at the inflation pressure recommended by the vehicle manufacturer, provided that such inflation pressure shall not exceed the recommendations

of the Year Book for the size and ply rating of the tire furnished.

**S3.1.2 Fully loaded vehicle.** A fully loaded vehicle is defined as the curb weight of a vehicle including all accessories plus the addition of 1,100 pounds distributed load for sedans, 1,200 pounds distributed load for carryalls and station wagons, and/or the specified G.V.W., or other specific vehicle manufacturer's rated load, distributed as closely as possible to load each axle to its rated load.

**S3.2 Rims for sedans and station wagons.** Automotive vehicles shall be equipped with rims conforming to or wider than the minimum of the listings of the Year Book for the size and ply rating of the tire furnished. In the event of rapid loss of inflation pressure with the vehicle traveling in a straight line at a road speed of 60 miles per hour, the rim shall retain the deflated tire until the vehicle can be stopped with a controlled braking application. For test purposes, an explosive device may be used to induce rapid loss of inflation pressure.

**S3.2.1 Resistance to tire bead unseating for sedans and station wagons.** When tested in accordance with the procedures described in paragraph 4.4 of SAE J918, the applied force required to unseat the tire bead at the point of contact shall be not less than 2,500 pounds.

Fed. Std. No. 515/16

June 30, 1965

(Effective September 28, 1966)

## FEDERAL STANDARD

## BACKUP LIGHTS FOR AUTOMOTIVE VEHICLES

*Authority. This standard is issued pursuant to Public Law 88-515, August 30, 1964, (78 Stat. 696) and the Federal Property and Administrative Services Act of 1949, as amended, and its application to the purchase of commodities referred to herein is mandatory on all Federal agencies.*

**S1. Purpose and scope.** This standard establishes requirements for an automotive vehicle backup light system that will warn pedestrians and approaching vehicles that the vehicle may move or is moving in reverse direction.

**S2. Application.** This standard applies to sedans, carryalls, station wagons, and light trucks up to 10,000 pounds G.V.W.

**S3. Requirements.** The backup light system shall consist of two or more white to amber lamps which, when the ignition is on, shall be illuminated automatically whenever the vehicle is in the reverse gear.

**S3.1 Tests.** All tests for the backup light system shall conform to SAE Standard for Backup Lamps, J593.



**Fed. Std. No. 515/17**

June 30, 1965

(Effective September 28, 1966)

**FEDERAL STANDARD****OUTSIDE REARVIEW MIRROR(S) FOR  
AUTOMOTIVE VEHICLES**

*Authority. This standard is issued pursuant to Public Law 88-515, August 30, 1964, (78 Stat. 696) and the Federal Property and Administrative Services Act of 1949, as amended, and its application to the purchase of commodities referred to herein is mandatory on all Federal agencies.*

**S1. Purpose and scope.** This standard establishes requirements for outside mounted rearview mirror(s) for automotive vehicles to provide unobstructed driver vision to the rear.

**S2. Application.** This standard applies to sedans, buses, carryalls, station wagons, and light trucks up to 10,000 pounds G.V.W.

**S3. Requirements.** The outside rearview mirror shall provide the driver with a clear, undistorted view of unit magnification under day or night operating conditions.

**S3.1 Size.** The outside mirror reflecting surface shall have a minimum diameter of 4-1/4 inches if of circular design. Rectangular mirrors shall have a minimum horizontal dimension of 4-1/4 inches and a vertical dimension sufficient to provide the driver a view of the road surface from a distance of not more than 35 feet to the rear of the eye of the driver of the vehicle to the horizon on a level road under normal load conditions. The 35 feet shall be measured from the position of the eye of the driver to the reflecting surface, then to the roadway to the rear of the vehicle.

**S3.2 Mounting.** The outside rearview mirror shall be designed and constructed to be mounted on the left outside of the vehicle in such a manner as to provide the driver with a stable, readily distinguishable image under normal road conditions and shall be so located as to require not more than 60° combined head and eye movement with

driver's seat in middle position. The mirror shall not be obscured by the unwiped portion of the windshield or corner pillar. The mirror shall be readily adjustable to accommodate different size drivers, seat positions, and load conditions. The mirror and mount shall be designed, constructed, located, and mounted so as to minimize pedestrian injury potential.

**S3.3 Additional outside rearview mirror.** Station wagons, carryalls, buses, and trucks shall be provided with an additional outside rearview mirror to provide driver vision to the right rear areas adjacent to the vehicle obscured by vehicle design or load conditions. The visual characteristics of the right outside mirror shall conform to the requirements of the left outside mirror except that the restriction on combined head and eye movement may be relaxed to the extent dictated by vehicle design. Design, construction, location, and mounting of the right outside mirror shall be symmetrical to the left outside mirror except that where necessary, consideration may be given to location and mounting problems dictated by vehicle design.

**S3.4 Wide angle mirror.** When specified, an auxiliary wide angle (convex) mirror may be incorporated in the same mount as the standard mirror to provide an additional close-in field of vision required under certain operating conditions. The auxiliary mirror shall be incorporated in such a manner as not to interfere with the visual field of the standard mirror.

## GENERAL SERVICES ADMINISTRATION

### Federal Supply Service

[ 41 CFR Subpart 101-29.3 ]

### FEDERAL STANDARD NO. 515—STANDARD SAFETY DEVICES FOR AUTOMOTIVE VEHICLES

#### Notice of Proposed Revision

Notice is hereby given that a revision is proposed in Federal Standard No. 515 which is prescribed in § 101-29.303 of the Federal Property Management Regulations. The revision as finally published will be issued pursuant to Public Law 88-515, approved August 30, 1964 (78 Stat. 696), and the Federal Property and Administrative Services Act of 1949 (63 Stat. 377), as amended, and will be effective 1 year and 90 days after the date of publication in the FEDERAL REGISTER. Federal Standard No. 515 was published originally in the FEDERAL REGISTER on June 30, 1965 (30 F.R. 8319).

The revision of Federal Standard No. 515 involves the addition of new detailed standards and changes in existing detailed standards and was developed through consultation with the automotive industry, technical societies, trade associations, the medical profession, and Government agencies. Proposed new detailed standards are designated as Federal Standards Nos. 515/18 through 515/26. Proposed changes in existing detailed standards are indicated by the letter "a" following the detailed standard number (e.g., 515/1a indicates the revision of 515/1). The changes in the existing detailed standards are as follows:

**No. 515/1a—Anchorages for Seat Belt Assemblies for Automotive Vehicles.** Made provisions for seat belt anchorages to the seats of school buses. Added anchorages for upper torso restraints for all outboard forward facing seating positions in vehicles other than buses.

**No. 515/2a—Forward Compartment Energy Absorption for Automotive Vehicles.** Title changed from "Padded Instrument Panel and Visors for Automotive Vehicles." Expanded impact area to include extremes of occupant size and to include 45-degree laterals to each side. Also added knee area protection and header and corner post padding.

**No. 515/3a—Recessed Instrument Panel Instruments and Control Devices for Automotive Vehicles.** Expanded impact areas to include extremes of occupant sizes and to include 45-degree

laterals to each side. Added requirement that specified essential controls be in reach of upper torso belted operator.

**No. 515/4a—Energy Absorbing Steering Control System for Automotive Vehicles.** Changed title from "Impact Absorbing Steering Wheel and Column Displacement for Automotive Vehicles." This proposal more clearly permits collapsible steering columns, denies clothes-catching hardware on steering wheel and increases barrier collision test to 30 miles per hour.

**No. 515/5a—Safety Door Latches and Hinges for Automotive Vehicles.** Increased door latch load requirements and added a requirement for a positive locking device or handles not operable by accidental side, rearward or forward force.

**No. 515/6a—Anchorage of Seats for Automotive Vehicles.** Added a requirement for locking devices for folding and pedestal type seats.

**No. 515/9a—Hydraulic Service Brake Systems for Automotive Vehicles.** Title changed from "Dual Operation of Brake System for Automotive Vehicles." Brake performance requirements for sedans, carryalls, and station wagons added. Brake fluid system changed to exclude absorption of moisture. Provisions made to more clearly permit other than hydraulic actuation of emergency backup system.

**No. 515/12a—Windshield Wipers and Washers for Automotive Vehicles.** Changed to include a specific area to be wiped.

**No. 515/13a—Glare Reduction Surfaces for Automotive Vehicles.** Expanded requirements to include all interior surfaces in the operator's field of view. Title changed from "Glare Reduction Surfaces—Instrument Panel and Windshield Wipers for Automotive Vehicles."

**No. 515/14a—Control of Air Pollution from Automotive Vehicles.** Title changed from "Exhaust Emission Control System for Automotive Vehicles." Incorporated requirements contained in a new standard proposed by Department of Health Education and Welfare.

**No. 515/17a—Rearview Mirror(s) for Automotive Vehicles.** Changed title from "Outside Rearview Mirror(s) for Automotive Vehicles." Added breakaway or detachable requirement for the inside rearview mirror and increased outside mirror minimum size to 5 inches.

Comments and suggestion are welcomed and should be submitted, in duplicate, to the Commissioner, Federal Supply Service, General Services Administration, Washington, D.C., 20405, within the period of 30 calendar days from the



date of publication of this notice in the FEDERAL REGISTER.

The text of the changes in and additions to the Federal Standard No. 515 are set forth below.

Dated: March 4, 1966.

LAWSON B. KNOTT, Jr.,  
Administrator of General Services.

Section 101-29.303 is amended as follows:

**§ 101-29.303 Federal Standard No. 515—Standard Safety Devices for Automotive Vehicles.**

(a) This section prescribes Federal Standard No. 515, covering safety devices for automotive vehicles, as required by Public Law 88-515, August 30, 1964 (78 Stat. 696). Automotive vehicles purchased by the Federal Government for use by the Federal Government shall be equipped with safety devices conforming to Federal Standard No. 515. Copies of this standard may be obtained from the Commissioner, Federal Supply Service, General Services Administration, Washington, D.C., 20405. Since Federal Standard No. 515 was originally prescribed (30 F.R. 8319, June 30, 1965), a number of detailed standards therein have been revised and new standards have been added. Where a standard has been revised the letter "a" appears in the number of the standard, e.g., 515/1a. The new detailed standards which have been added include Standards Nos. 515/18 through 515/26. In the introduction entitled Standard Safety Devices for Automotive Vehicles, paragraph S3 has been revised. As amended, Federal Standard No. 515 is composed of detailed standards which include:

- (1) No. 515/1a—Anchorages for Seat Belt Assemblies for Automotive Vehicles.
- (2) No. 515/2a—Forward Compartment Energy Absorption for Automotive Vehicles.
- (3) No. 515/3a—Recessed Instrument Panel Instruments and Control Devices for Automotive Vehicles.
- (4) No. 515/4a—Energy Absorbing Steering Control System for Automotive Vehicles.
- (5) No. 515/5a—Safety Door Latches and Hinges for Automotive Vehicles.
- (6) No. 515/6a—Anchorage of Seats for Automotive Vehicles.
- (7) No. 515/7—Four Way Flasher for Automotive Vehicles.
- (8) No. 515/8—Safety Glazing Materials for Automotive Vehicles.
- (9) No. 515/9a—Hydraulic Service Brake Systems for Automotive Vehicles.
- (10) No. 515/10—Standard Bumper Heights for Automotive Vehicles.
- (11) No. 515/11—Standard Gear Quadrant (PRNDL) for Automotive Vehicles Equipped with Automatic Transmissions.

(12) No. 515/12a—Windshield Wipers and Washers for Automotive Vehicles.

(13) No. 515/13a—Glare Reduction Surfaces for Automotive Vehicles.

(14) No. 515/14a—Control of Air Pollution from Automotive Vehicles.

(15) No. 515/15—Tires and Safety Rims for Automotive Vehicles.

(16) No. 515/16—Backup Lights for Automotive Vehicles.

(17) No. 515/17a—Rearview Mirror(s) for Automotive Vehicles.

(18) No. 515/18—Window and Door Controls for Automotive Vehicles.

(19) No. 515/19—Ash Trays and Lighters for Automotive Vehicles.

(20) No. 515/20—Arm Rests for Automotive Vehicles.

(21) No. 515/21—Padding for Automotive Seat Backs.

(22) No. 515/22—Headrests for Automotive Vehicles.

(23) No. 515/23—Side Marker Devices for Automotive Vehicles.

(24) No. 515/24—Rear Window Defogger for Automotive Vehicles.

(25) No. 515/25—Roll Bars for Automotive Vehicles.

(26) No. 515/26—Fuel Tanks and Tank Filler Pipes for Automotive Vehicles.

(b) The Standard reads as follows:

[Federal Standard No. 515]

**STANDARD SAFETY DEVICES FOR AUTOMOTIVE VEHICLES**

S3. *Safety devices.* Safety devices shall be as specified in the detailed standards (see S4). Publications referenced in the detailed standards form a part of this standard, as applicable. The publications referred to are the issues in effect on the date of the publication of this standard in the FEDERAL REGISTER; in the case of changes in Federal Standard No. 515, reference to publications therein are to the issues in effect on the date of the publication of the respective changes in the FEDERAL REGISTER.

NOTE: Copies of ASTM Standards may be obtained from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pa., 19103.

NOTE: Copies of SAE publications may be obtained from the Society of Automotive Engineers, Inc., 485 Lexington Avenue, New York, N.Y., 10017.

[Federal Standard No. 515/1a]

**ANCHORAGES FOR SEAT BELT ASSEMBLIES FOR AUTOMOTIVE VEHICLES**

S1. *Purpose and scope.* This standard establishes the requirements and test procedures for anchorages for seat belt assemblies for automotive vehicles. This standard does not cover seat belt assemblies.

S2. *Application.* This standard applies to sedans, station wagons, carryalls, buses (designated as school buses), and to light trucks up to 10,000 pounds G.V.W. Excluded are

stand-up, walk-in package delivery vehicles with tilt type drivers' seats. Excluded are folding jump seats that are folded directly behind the front seat.

### S3. Standard characteristics.

#### S3.1 Definitions.

**S3.1.1 Anchorage.** A seat belt anchorage shall consist of a threaded hole, an eyebolt, or other suitable means of attachment and shall be situated in a suitable structure to receive the seat belt attachment fittings.

**S3.1.2 Attachment fittings.** Attachment fittings are the parts necessary to attach the seat belt assembly to the vehicle structure.

**S3.1.3 Seat belt assembly.** A seat belt assembly is any strap, webbing, or similar device designed to secure a person in an automotive vehicle with the intention of mitigating the results of a traffic accident, including all buckles or other fasteners, and all hardware designed for installing the assembly in an automotive vehicle. The seat belt assemblies intended for installation in the anchorages specified hereinafter are described in Fed. Spec. JJ-B-185 and Standards for Seat Belts for Use in Motor Vehicles, 30 F.R. 8432 (July 1, 1965); 15 CFR.

**S3.1.3.1 Type 1 seat belt assembly.** A type 1 seat belt assembly is a lap belt for pelvic restraint.

**S3.1.3.2 Type 2 seat belt assembly.** A type 2 seat belt assembly is a combination of pelvic and upper torso restraints.

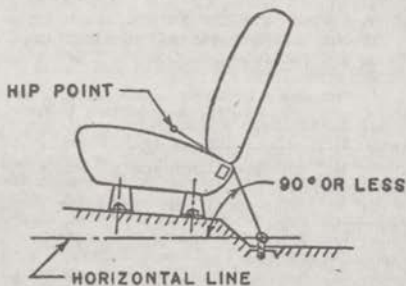
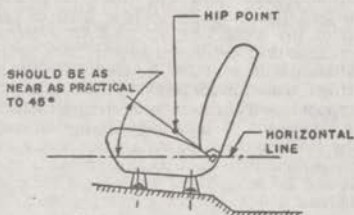
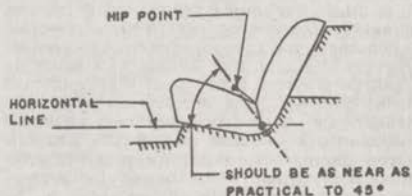
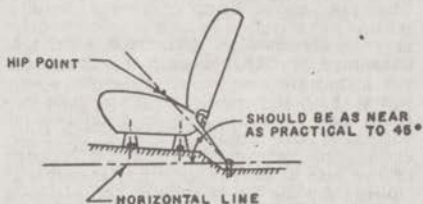
**S3.1.3.3 Type 2a seat belt assembly.** A type 2a seat belt assembly is a shoulder belt for upper torso restraint for use only in conjunction with a type 1 lap belt.

**S3.2 Anchorages.** The SAE Recommended Practice for Motor Vehicle Seat Belt Anchorage, J787, forms a basis, in part, for this Federal Standard.

**S3.2.1 General.** When eyebolt anchorages are furnished, they shall conform to the applicable requirements of Fed. Spec. JJ-A-530. All threads shall be in accordance with the applicable requirements of the National Bureau of Standards Handbook H28. The location of the anchorages shall be determined with the seat in its rearmost limit of travel.

**S3.2.1.1 Anchorages for type 1 seat belt assemblies and lap portion of types 2 and 2a seat belt assemblies.** Anchorages for type 1 seat belt assemblies or the lap belt portion of types 2 and 2a seat belt assemblies shall be provided for three sets of seat belts for all bench type seats designed to accommodate three persons. The location of anchorages for type 1 seat belt assemblies or the lap portion of type 2 seat belt assemblies shall be such that a line from the anchorage to the passengers' "hip" point will make an angle from the horizontal as near as practicable to 45 degrees, as shown in figures 1, 2, and 3. The hip point is the point on the manikin defined as the "H" point in SAE Standard, Manikins for Use in Defining Vehicle Seating Accommodations, J826. The location of the hip point shall be determined by following the procedures in SAE J826. Anchorages for belts that will be installed over the seat bottom frame rear bar shall be rearward of a vertical line through the

point where the belt will enter the seat, as shown in figure 4. All anchorages shall be spaced laterally so that the lap portion of the belt essentially forms a U-shaped loop when in use. The same anchorage shall not be used for both ends of a single type 1 seat belt assembly or the lap portion of a single type 2 seat belt assembly. Type 1 seat belt assemblies used in school buses shall utilize the seat for the anchorage attachment points and shall comply with the above, where applicable. Common anchorages may be used for one end of each of two assemblies provided strength requirements are in accordance with S3.2.2.



**S3.2.1.2 Anchorages for types 2 and 2a seat belt assemblies.** Except for buses and vinyl or canvas top or bolted-on metal enclosure vehicles and utility vehicles of the three-wheel type, automotive vehicles covered by



this standard shall be provided with anchorages for a type 2 or 2a seat belt assembly for at least each outboard front seat occupant of carryalls and light trucks. Front and rear seat anchorages shall be provided for each outboard occupant of sedans and station wagons (forward facing seats only) for which the vehicle is designed. For buses, only the drivers' seat need be provided with anchorages for types 2 and 2a seat belt assemblies. At least three anchorages shall be provided for each type 2 or 2a seat belt assembly; two anchorages for the lap portion of a type 2 seat belt assembly and at least one anchorage for the upper torso or shoulder portion of a type 2 or 2a seat belt assembly. The upper end of the upper torso or shoulder portion of the type 2 or 2a seat belt assembly may be fastened to either the seat, side anchorage, rear anchorage, roof or floor provided that the seat or other structure over which the belt passes or to which it is fastened has been designed or reinforced to withstand the resulting load. The lower end may be fastened either to the lap portion of the belt or to the existing inboard anchorage for the lap portion of the seat belt assembly.

**S3.2.1.3 Anchorages for the upper torso or shoulder portion of seat belt assemblies.** Anchorages for the upper torso or shoulder portion of a type 2 or 2a seat belt assembly shall be provided for at least each outboard front seat occupant of carryalls and light trucks, and both front and rear outboard occupants of sedans and station wagons (front facing seats only) for which the vehicle is designed. With the seat in its rear-most limit of travel and the seat back in the nominal design position, these anchorages shall be longitudinally in line with or rearward of the torso line of the SAE 3-dimensional manikin described in the SAE Standard "Manikins for Use in Defining Vehicle Seating Accommodations," SAE J826. If there is a downward angle of the belt passing from the point of tangency on the shoulder of the SAE manikin to an anchorage or over suitable structure to an anchorage, this angle shall not be more than 40 degrees from the horizontal.

FIGURE 1.—Belt outside seat or through seat springs.

FIGURE 2.—Rear seat belt installation.

FIGURE 3.—Belt attached to seat frame.

FIGURE 4.—Belt over seat crossbar.

**S3.2.2 Strength.** The vehicle structure (excluding school buses) shall sustain the simultaneous pull on each set of seat belt assemblies for each passenger for which the seat is designed. Permanent deformation of any anchorage or surrounding area is acceptable provided there is no rupture or breakage and the anchorage does not pull loose. Each school bus seat may be tested independently, but must sustain established forces for all attached anchorages. The upper end anchorage for upper torso types 2 and 2a belts may be tested independently

provided the anchorages are located in structural members in which no lap belt anchorages are located.

**S3.2.2.1 Anchorages for types 2 and 2a seat belt assemblies.** The outboard anchorage for the lap belt portion of a type 2 seat belt assembly shall sustain a pull of 2,500 pounds. Outboard anchorages for the upper torso or shoulder restraint portion of type 2 or 2a seat belts shall sustain a pull of 1,500 pounds for each anchorage. Common anchorages for the inboard ends of types 1 and 2a seat belt combination or the inboard anchorage of a type 2 seat belt assembly shall sustain a pull of 3,000 pounds. Common anchorages for one end of a center lap belt and either the inboard end of a type 1 seat belt or the lap belt portion of a type 2 seat belt and the inboard end of an upper torso or shoulder restraint shall sustain a pull of 5,500 pounds. A common anchorage for the inboard ends of two outboard lap belts and inboard ends of the upper torso or shoulder restraint portion of the types 2 and 2a seat belt assemblies shall sustain a pull of 6,000 pounds.

**S3.2.2.2 Anchorages for type 1 seat belt assemblies.** Anchorages for type 1 seat belt assemblies shall sustain a pull of 2,500 pounds for each lap belt end attached.

**S3.2.2.2.1 Anchorages for type 1 seat belt assemblies for school buses.** Anchorages for type 1 seat belt assemblies shall sustain a pull of 2,500 pounds for each lap belt end attached.

**S3.2.2.3 Anchorages for seat belt assemblies attached to the seat frame.** The seat structure, the seat adjusters, if applicable, and the attachments, shall sustain the load specified in S3.2.2.1, S3.2.2.2, and S3.2.2.2.1, as applicable, for each seat belt end attached to the seat plus the seat inertia force. The seat inertia force shall be 20 times the seat weight. Floor and seat deformation is acceptable provided there is no structural failure or release of the seat adjuster mechanism.

**S3.2.3 Test procedure.** The strength test shall be conducted either with the connection from the body block to the anchorages made in a manner in which the belts are installed or a suitable equivalent method. The load shall be applied to the body block at an angle of 10 degrees plus or minus 5 degrees from the horizontal. As applicable, the doors of the vehicle may be closed during the test.

**S3.2.3.1 Test for types 2 and 2a seat belt anchorages.** The loads specified in S3.2.2.1 shall be applied using either a body block set up similar to that shown in figure 5 or a suitable equivalent method. The strength test shall be conducted with the seat in place in the vehicle.

**S3.2.3.2 Test for type 1 seat belt anchorages.** The load specified in S3.2.2.2 or S3.2.2.2.1, as applicable, shall be applied using either a body block similar to that shown in figure 6 or a suitable equivalent method. The strength test shall be conducted either with the seat in place in the vehicle or with the seat installed on an applicable vehicle floor pan.

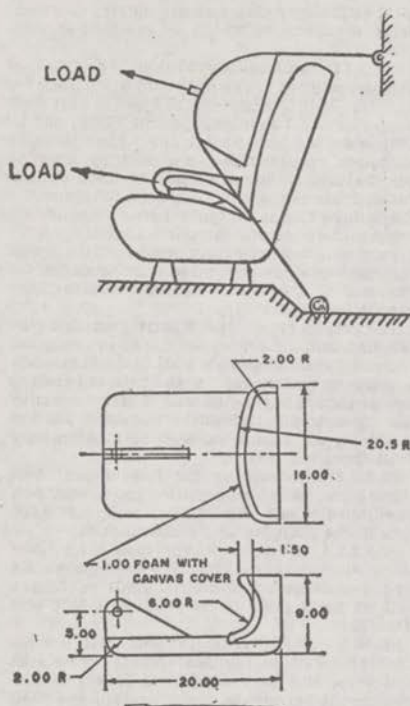


FIGURE 5.—Body block set up for combination shoulder and lap belt anchorages.  
FIGURE 6.—Body block for lap belt anchorages.

[Federal Standard No. 515/2a]

#### FORWARD COMPARTMENT ENERGY ABSORPTION FOR AUTOMOTIVE VEHICLES

**S1. Purpose and scope.** This standard establishes requirements and test procedures for forward compartment energy absorption for automotive vehicles. The forward compartment includes the areas of the instrument panel, sun visors, header, corner A pillars, and under the instrument panel with construction designed to afford a reasonable degree of protection for the front seat occupants wearing type 1 seat belt assemblies.

**S2. Application.** This standard applies to sedans, carryalls, station wagons, and to light trucks up to 10,000 pounds G.V.W.

**S3. Requirements.** Injury potential shall be minimized by constructing or locating forward compartment structures to eliminate impact or to reduce the forces generated by front seat occupants wearing type 1 seat belt assemblies when impacting these structures.

**S3.1 Impact areas.** The head impact areas shall be established through the use of type 1 seat belt assembly restrained manikins or other test devices based upon the equivalent to "H" point to top-of-head dimensions of 33 inches and 29 inches. Adjustable seats shall be in the extreme for-

ward position for the indicated 33 inch device and in the extreme rearward position for the indicated 29 inch device. The impact areas shall be that included between the arcs formed by the top-of-head point when each device is swung forward and also 45 degrees to each side of the longitudinal axis through each normal seating position. The knee and leg impact areas shall be established by the use of a type 1 seat belt restrained manikin or equivalent of approximately 95th percentile male dimensions and with the front seat in midposition.

#### S3.2 Location and construction.

**S3.2.1** The structure of the instrument panel shall be such as to minimize injury to the head of an occupant upon impact or to be outside the established impact area. If within the impact area the panel shall be covered with energy absorbing cushioning material applied over a crushable or collapsible metal backing that will deform and expand the areas of contact. There shall be no protruding or sharp rigid edges in the impact area and/or under the cushioning material in the impact area. Tests shall be in accordance with SAE Recommended Practice for Instrument Panel Laboratory Impact Test Procedure, J921, and the deceleration of the head form when impacting the panel at 22 feet per second shall not exceed an effective maximum value of 80 gs in 60 milliseconds excluding all portions of the deceleration time curve of less than 3 milliseconds duration.

**S3.2.2** The lower portion of the instrument panel shall contain no sharp or protruding edges within the knee and leg impact areas. The impact area structures shall be constructed of material that will deform and expand areas of contact to absorb and minimize injury when struck by the knees or legs of front seat occupants.

**S3.2.3** The sun visors shall be constructed of or be covered by energy absorbing cushioning material. The sun visor mounting shall be designed and located to provide a reasonable degree of head protection.

**S3.2.4** The roof header impact areas shall contain no sharp or protruding edges. The impact areas shall be covered with 0.5 inch minimum of energy absorbing cushioning material to reduce the likelihood of injury to the occupant's head upon impact.

**S3.2.5** The right and left front corner posts shall not contain any sharp or protruding edges. The corner posts in the impact areas shall be covered with 0.5 inch minimum of energy absorbing cushioning material to reduce the likelihood of injury to the occupant's head upon impact. Padding shall be designed and placed so as to minimize loss of visibility.

[Federal Standard No. 515/3a]

#### RECESSED INSTRUMENT PANEL INSTRUMENTS AND CONTROL DEVICES FOR AUTOMOTIVE VEHICLES

**S1. Purpose and scope.** This standard establishes the location and identification of automotive vehicle instruments and control devices to afford a reasonable degree of protection for front seat occupants wearing



type 1 seat belt assemblies in event of a collision.

**S2. Application.** This standard applies to sedans, carryalls, station wagons and light trucks up to 10,000 pounds G.V.W. Excluded are stand-up walk-in package delivery vehicles with tilt type drivers' seats. Also excluded are utility vehicles of the three-wheel type.

**S3. Requirements.** Injury potential shall be minimized by constructing, locating, or mounting control devices and instruments bezels in such a manner as to reasonably minimize contact by the heads of occupants wearing type 1 seat belt assemblies. Injury potential shall be minimized by the following means:

**S3.1 Location, construction, and mounting.**

**S3.1.1** All instrument panel mounted control devices shall be located within reach of the driver wearing a type 2 or 2a seat belt assembly, except controls not essential to controlling a moving vehicle. The essential controls are the steering wheel, transmission selector lever, turn signals lever, ignition switch, headlight switch, and windshield wiper and washer controls. Essential controls shall be readily identified.

**S3.1.2** The impact area shall be established through the use of type 1 seat belt assembly restrained manikins or other test devices having "H" point to top-of-head dimensions of 33 inches and 29 inches. Adjustable seats shall be in the extreme forward position for the indicated 33 inch device and in the extreme rearward position for the indicated 29 inch device. The impact area shall be that included between the arcs formed by the top-of-head point when each device is swung forward and also 45 degrees to each side of the longitudinal axis through each normal seating position.

**S3.1.3** Control devices and instruments positioned outside the established contact area or which cannot be struck due to steering wheel, column, or shielding are not required to meet the specifications following. All other control devices shall have a contact area of not less than 1.0 square inch of flat surface with an edge radius of not less than 0.125 inch and shall be mounted and constructed of materials which will deflect flush within 0.375 inch of the panel surface or are to be mounted in such a manner as to allow them to be pushed flush with the panel surface or be detached by application of a force not to exceed 90 pounds when struck from any position defined in 3.1.2.

**S3.1.4** Instrument bezels not meeting S3.1.3 and likely to be contacted by the head of a belted occupant shall have an edge radius of not less than 0.125 inch and shall project not more than 0.250 inch above the surface of the panel or shall be so shielded as to reasonably minimize contact by the head of belted occupant.

**S3.1.5** The transmission selector lever knob end shall have a relative flat area of at least 1.0 square inch when selector lever is mounted on the steering column within the impact area as defined in S3.1.2. There shall be no permissible complete penetration

of the knob by the selector shaft, under a head impact of 80 gs.

#### [Federal Standard No. 515/4a.]

#### ENERGY ABSORBING STEERING CONTROL SYSTEM FOR AUTOMOTIVE VEHICLES

**S1. Purpose and scope.** This standard establishes requirements for energy absorbing steering control systems installed on automotive vehicles.

**S2. Application.** This standard applies to sedans and station wagons.

**S3. Standard characteristics.** The SAE Recommended Practice for Barrier Collision Tests, J850, forms the basis for section S3.4 of this standard.

**S3.1 Definition.** The steering control system is defined as the basic steering mechanism in combination with its associated horn actuating mechanism, trim hardware, etc., and includes any portion of the steering column assembly that may contain an energy absorber for the purpose of dissipating energy upon impact.

**S3.2** The steering control assembly shall be constructed so that when it is impacted at a relative velocity of 22 feet per second with a torso shaped body block as shown in figure 1, weighing 75-80 pounds, and having a spring rate load of 600-800 pounds per inch, the force developed during collapse of the system shall not exceed 2,500 pounds. The spring rate is determined by loading the chest of the torso shaped body block with a 4-inch wide flat contact surface so that it is 90 degrees to the longitudinal axis of the body block, parallel to the backing plate and within 15 to 20 inches from the top of the head form. The load is measured when the flat contact surface has moved down  $\frac{1}{2}$  inch, and the spring rate is determined by doubling this load figure.

**S3.2.1** When the steering wheel is the principal energy absorbing element, the load cell recording device shall be equivalent to the type shown in figure 2 and shall be mounted either directly behind the wheel or in the frontal surface of the body block, with its axis of primary sensitivity in the direction of body block travel at the time of impact. The steering wheel shall be mounted to the load cell by means of an appropriate nose piece at the same angle as it is to be installed in the vehicle.

**S3.2.2** When a component or components other than the steering wheel, such as the steering column, is the principal energy absorbing element or contributes substantially to the absorption of energy, the load cell shall be located between the steering wheel and the remainder of the energy absorbing system, preferably immediately under the wheel, or in the forward, impacting surface of the body block.

**S3.3** Other testing methods, such as high capacity acceleration facilities and anthropometric dummies, giving equivalent results, may be utilized in lieu of methods defined in S3.2, S3.2.1, and S3.2.2.

**S3.4** The steering control assembly shall be so designed that when the front structure of the automotive vehicle collapses during

the SAE J850 barrier collision test, or equivalent at 30 miles per hour, the upper end of the steering control system shall not be displaced rearward, relative to an undisturbed point to the rear of the steering wheel position, more than 5 inches.

S3.4.1 The rearward displacement of the steering control assembly shall be determined

under dynamic conditions during the barrier collision or equivalent test.

S3.5 The steering control system shall be so constructed that there shall be no devices or attachments such as horn actuating mechanism, trim hardware etc., which can catch in the operator's clothing during normal driving maneuvers.

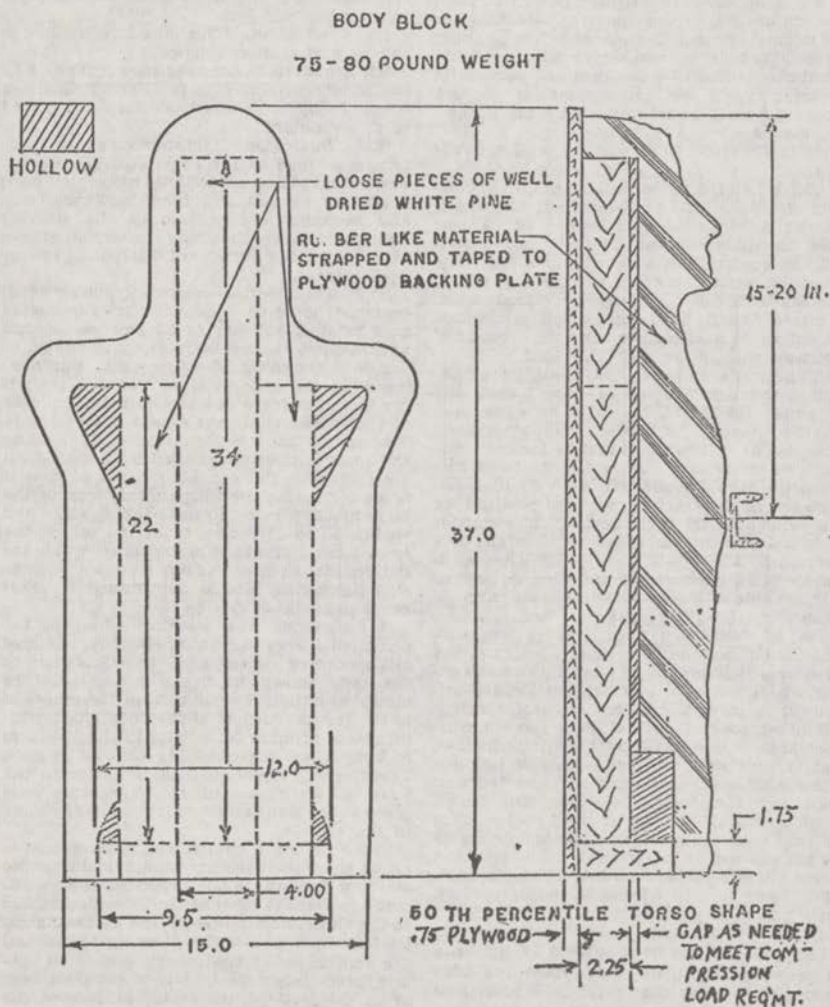


FIGURE 1



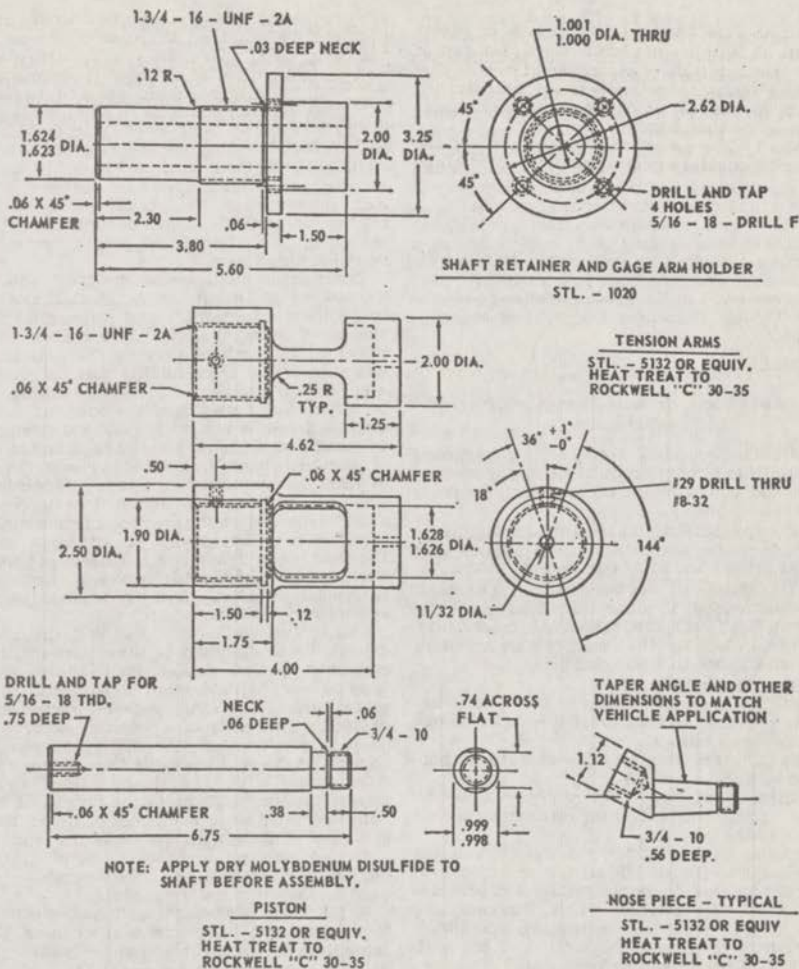


FIGURE 2

[Federal Standard No. 515/5a]

## SAFETY DOOR LATCHES AND HINGES FOR AUTOMOTIVE VEHICLES

**S1. Purpose and scope.** This standard establishes uniform test procedures and minimum static load requirements for automotive vehicle side door latches and hinges.

**S2. Application.** This standard applies to sedans, carryalls, station wagons, and light trucks up to 10,000 pounds G.V.W., except those light trucks with folding or cargo type doors or open body trucks with enclosures made of canvas, aluminum, fiber glass, plastic, and steel. The secondary latch load does not apply to sliding doors.

**S3. Requirements.** All applicable automotive vehicles shall be equipped with safety door latches and hinges. The hinges shall have ample strength to support the door and to withstand the longitudinal load and transverse load equal to or greater than that specified in S3.1 and S3.2 for the door latch and striker assembly. All door release handles on each door shall be provided with a single positive locking device not subject to accidental release. Interior or exterior handles need not be locked by this device if not operable by accidental side, rearward or forward force.

**S3.1 Longitudinal load.** Automotive vehicle door latch and striker assembly, when tested as prescribed under test procedures

(S3.3), shall be able to withstand a minimum longitudinal load of 2,500 pounds when in fully latched position, and 1,000 pounds when in the secondary latch position.

**S3.2 Transverse load.** Automotive vehicle door latch and striker assembly, when tested as prescribed under test procedures (S3.3), must be able to withstand a minimum transverse load of 2,000 pounds when in the fully latched position and 1,000 pounds when in the secondary latched position.

**S3 Test procedures.** Test procedures and test fixtures shall be in accordance with section 4 of SAE Recommended Practice for Passenger Car Side Door Latch Systems, J839 and section 4 of SAE Recommended Practice for Vehicle Passenger Door Hinge Systems, J934.

[Federal Standard No. 515/6a]

ANCHORAGE OF SEATS FOR AUTOMOTIVE VEHICLES

**S1. Purpose and scope.** This standard establishes strength requirements for anchorage and construction of automotive vehicle seat assemblies.

**S2. Application.** This standard applies to sedans, buses, carryalls, station wagons, and light trucks up to 10,000 pounds G.V.W.

**S3. Standard characteristics.** The SAE Recommended Practice for Passenger Car Front Seat and Front Seat Adjuster, J879, forms a basis for that part of this standard which applies to front seats.

**S3.1 Definitions.**

**S3.1.1 Automotive vehicle seat.** A structure provided to seat the driver and/or one or more passengers.

**S3.1.2 Seat frame.** The structural portion of a seat assembly.

**S3.1.3 Seat back frame upper crossbar.** The uppermost horizontal member of a seat back frame.

**S3.1.4 Seat adjuster.** A device suitably anchored to the vehicle structure which supports the seat frame assembly and provides for seat adjustments. This includes any track, link, or power actuating assemblies necessary to adjust the position of the seat.

**S3.2 Requirements, front seats.**

**S3.2.1 Seat adjusters and seat frame combinations.** Each combination of seat adjuster and seat frame, together with its attachments, shall be constructed and anchored to the vehicle structure which supports it in such a manner as to sustain a horizontal forward and rearward static load equal to a minimum of 20 times the weight of the fully trimmed seat.

**S3.2.2 Seat cushion and back frame combination.** Each seat cushion and back frame combination, together with its attachments, shall be constructed and anchored to the vehicle structure which supports it in such a manner as to sustain a rearward moment about the rear attachment of the seat frame to the seat adjuster of 4,250 inch-pounds for each passenger for which the seat back is designed. The load required to obtain this moment shall be applied to the seat back upper crossbar location normal to the seat back.

**NOTE:** Some energy absorption under impact can be obtained through deflection of the seat back. Therefore, some deflection and permanent set of the seat back consistent with rigidity requirements and normal occupant accommodations is permissible.

**S3.2.3 Folding seat back frames.** Each seat back frame designed to fold over the seat shall be equipped with a releasable, self-locking, restraining device or devices. The lock release shall be located so as to be readily accessible to the occupant of the seat and, if applicable, to permit egress to rear seat passengers.

The release shall be so designed and/or located as to minimize accidental release in collision situations. The restraining device or devices shall be constructed with sufficient strength to prevent the seat back frame assembly from folding forward under a horizontal static load equal to a minimum of 20 times the weight of the fully trimmed seat back frame, and with sufficient strength to sustain a moment about the attachment of the seat back frame to the seat frame of 4,250 inch-pounds in a rearward direction. The load required to attain this moment shall be applied at the seat back frame upper crossbar location normal to the seat with the seat back frame in a locked position. Excluded are tilt type drivers' seats installed in special purpose, stand-up, walk-in package delivery vehicles.

**S3.2.4 Pedestal seats.** Pedestal mounted drivers' seats designed to pivot forward, installed in special purpose, stand-up, walk-in type delivery vehicles shall be equipped with releasable, self-locking, pedestal restraining devices. The restraining device or devices shall be constructed with sufficient strength to prevent the seat assembly from tilting forward under a horizontal static load equal to a minimum of 20 times the weight of the fully trimmed seat components. The load shall be applied with the seat pedestal in a locked position and at the level of the center of gravity of the seat assembly.

**S3.3 Requirements, rear seats.**

**S3.3.1 Rear seat backs and seat cushions.** Each rear seat back and seat cushion designed to provide rear passenger seating in sedans shall be constructed and anchored to the vehicle structure which supports it in such a manner as to sustain a horizontal forward static load equal to a minimum of 20 times the weight of the fully trimmed component.

**S3.4 Requirements, other seats.**

**S3.4.1 Seat frames.** Seat frames designed to be fastened to the vehicle floor without adjustment in sedans, buses, carryalls, and station wagons shall be constructed and anchored to the vehicle structure which supports them, either permanently or by detachable fittings, in such a manner as to sustain a forward and rearward static load equal to 20 times the weight of the fully trimmed seat.

**S3.4.2 Seat back frames.**

**S3.4.2.1 Forward facing seat back frames** designed to provide backs for intermediate seating in sedans and buses and intermediate and rear seating in carryalls and station wagons shall be constructed and anchored,



either permanently or by detachable fittings as specified, to the seat frame in such a manner as to sustain a rearward (in relation to the seat) moment, about the rear attachments of the seat frame to the vehicle structure which supports it, equal to a minimum of 4,250 inch-pounds for each passenger for which the seat is designed. The load required to obtain this moment shall be applied to the seat back upper crossbar location normal to the seat back (see note in S3.2.2).

S3.4.2.2 *Rearward facing seat back frames* designed to provide backs for rear seating in station wagons shall be constructed and anchored, either permanently or by detachable fittings as specified, to the seat frame in such a manner as to sustain a rearward (in relation to the seat) load equal to a minimum of 4,250 inch-pounds for each passenger for which the seat is designed. The load required to obtain this moment shall be applied to the seat back upper crossbar location normal to the seat back (see note in S3.2.2).

S3.4.2.3. *Longitudinally mounted seats* in station wagons, and when specified for installation in trucks, shall be constructed and anchored, either permanently or by detachable fittings to the vehicle structure which supports them in such a manner as to sustain a forward and rearward (in relation to the vehicle) static load equal to 20 times the weight of the fully trimmed seat.

S3.4.3 *Folding seats.* Seats designed to pivot forward on their forward attachment to the vehicle structure shall be equipped with a releasable, self-locking, restraining device. The lock release shall be located so as to be readily accessible to the occupant of the seat or, if applicable, to permit egress to a passenger seated to the rear. The release shall be so designed and/or located as to minimize accidental release in collision situations. The restraining device shall be constructed with sufficient strength to prevent the seat assembly from folding forward under a horizontal static load equal to a minimum of 20 times the weight of the fully trimmed seat assembly.

S3.4.4 *Folding seat back frames.* Forward facing seat back frames designed to provide backs for intermediate seating in carryalls and station wagons and further designed to fold over the seat shall be equipped with releasable, self-locking, restraining devices. The lock release shall be located so as to be readily accessible to the occupant of the seat or, if applicable, to permit egress to a passenger seated to the rear. The release shall be so located and/or designed as to minimize accidental release in collision situations. The restraining device shall be constructed with sufficient strength to prevent the seat back frame assembly from folding forward under a horizontal static load equal to a minimum of 20 times the weight of the fully trimmed seat back frame, and with sufficient strength to sustain a rearward moment about the attachment of the seat back frame to the seat frame of 4,250 inch-pounds for each passenger for which the seat back is designed. The load required to attain this moment shall be applied to the seat back frame upper crossbar location normal to the seat with the seat back frame in a locked position.

S3.5 *Seats designed to provide seat belt anchorage.*

S3.5.1 *Sedans, carryalls, station wagons, and light trucks up to 10,000 pounds G.V.W.* Seat frames and seat back frames designed to provide anchorages for seat belts shall be constructed and anchored to the vehicle structure which supports them in such a manner as to sustain an additional forward static load equal to a minimum of 2,500 pounds for each lap belt end attached or 3,000 pounds for each combination lap and shoulder belt end attached.

S3.5.2 *Buses.*

S3.5.2.1 *Driver's seat.* Driver's seat frames and seat back frames designed to provide anchorages for seat belts shall be constructed and anchored to the vehicle structure which supports them in such a manner as to sustain an additional static forward load equal to a minimum of 2,500 pounds for each lap belt end attached, or 3,000 pounds for each combination lap and shoulder belt end attached.

S3.5.2.2 *Passenger seats.* Passenger seat frames and seat back frames designed to provide anchorages for seat belts shall be constructed and anchored to the vehicle structure which supports them in such a manner as to sustain an additional forward static load equal to a minimum of 2,500 pounds for each type 1 or 1a lap belt end attached.

S3.6 *Test procedure.* Testing of front seats shall be in accordance with the procedures set forth in SAE Recommended Practice J879. Testing of intermediate and rear seats shall be accomplished by applying similar procedures. Testing of seats designed to provide seat belt anchorage shall be in accordance with applicable procedures set forth in S3.2.3 of Fed. Std. No. 515/1a.

[Federal Standard No. 515/9a]

#### HYDRAULIC SERVICE BRAKE SYSTEMS FOR AUTOMOTIVE VEHICLES

S1. *Purpose and scope.* This standard establishes requirements for hydraulic service brake systems installed on automotive vehicles.

S2. *Application.* This standard applies to sedans, buses, carryalls, station wagons, and to light trucks up to 10,000 pounds G.V.W.

S3. *Standard characteristics.* The National Committee on Uniform Traffic Laws and Ordinances, Uniform Vehicle Code; The Society of Automotive Engineers, Inc., Brake System Road Test Code—Passenger Car, SAE J843a and Service Brake System Performance Requirements—Passenger Car, SAE J937, form the bases for this standard.

S3.1 *Service brake system performance.* The performance ability of the fully operational service brake system for sedans and station wagons, shall be not less than described in section D of SAE J937, tested in accordance with the requirements of SAE J843a. The performance ability of the fully operational service brake system for carryalls, buses and light trucks up to 10,000 pounds G.V.W. shall be not less than described in section 12-302 of the Uniform Vehicle Code.

S3.1.1 *Design.* The service brake system shall be of such design that rupture or fail-

ure of an actuating-pressure component in the system shall not result in complete loss of function of the service brake system. Actuating-pressure components are defined as, the brake master cylinder or master control unit, wheel brake cylinder, brake line, brake hose or equivalent, as applicable. The hydraulic fluid system shall be sealed in such a manner so as to provide protection of the brake fluid from outside contamination.

**S3.1.2 Partial system performance.** In the event of rupture or failure to an actuating-pressure component to any single brake, the components of the unaffected portion of the system shall continue to function. Mechanical linkage or other means of brake application may be utilized to meet this requirement provided that continuation of the same motion on the same brake pedal used to actuate the normal system applies or actuates the braking force.

**S3.2 System effectiveness indication.** System effectiveness shall be indicated by means of an electrically operated red light mounted on the instrument panel. The light shall have an area of not less than 0.196 square inch. It shall illuminate before or upon application of the brakes when an actuating-pressure component of the system has sustained a loss of fluid or pressure. The indicator light system shall include a means for the vehicle operator to perform a test to assure the light bulb is operable.

[Federal Standard No. 515/12a]

#### WINDSHIELD WIPERS AND WASHERS FOR AUTOMOTIVE VEHICLES

**S1. Purpose and scope.** This standard establishes minimum requirements for automotive vehicle windshield wiping and washing systems.

**S2. Application.** This standard applies to sedans, buses, carryalls, station wagons, and light trucks up to 10,000 pounds G.V.W., with windshields of one piece construction of the fixed type. Excluded are utility vehicles of the three-wheel type.

**S3. Requirements.** The windshield wiper system shall be driven by a motor actuated by a conveniently located control by which the operator of the vehicle may vary the frequency speed of wipers. The windshield wiper system shall be designed to provide two or more frequency speeds and each frequency speed shall be substantially constant regardless of engine load. Windshield wiper systems designed to interrupt at the end of each frequency cycle by means of a timing device will be acceptable if the timing device can be varied to provide continuous operation and two or more frequencies of interrupted operation. All requirements other than those specified herein shall be in accordance with SAE J903, Recommended Practice for Passenger Car Windshield Wiper Systems.

**S3.1 Wiped area.** The minimum wiped area of the windshield shall include the area of the windshield established by a horizontal dimension, projected as a line from the vertical center line of the eye level of the 95th percentile male with seat in midseat position and extending to within one and one-half inches of each corner post and including the center portion of the windshield. The minimum

wiped area shall also include that portion of the windshield measured from the horizontal eye level line in a vertical direction 10 degrees above and 10 degrees below the horizontal eye level line at a point in front of the operator and a point in front of right seat occupant.

**S3.2 Windshield washers.** The windshield washer system shall be provided with a container with the capacity of at least 48 ounces of fluid. The container shall be made of such material that it will not crack or break in the event the fluid freezes. The fluid shall be applied to the outside of the windshield by vacuum pump or other method. The washer shall be actuated either manually or automatically.

**S3.3 Tests.** All tests shall be in accordance with SAE Recommended Practice J903.

[Federal Standard No. 515/13a]

#### GLARE REDUCTION SURFACES FOR AUTOMOTIVE VEHICLES

**S1. Purpose and scope.** This standard establishes glare limits for appearance finishes of vehicle components in and adjacent to the operator's field of view to achieve the most practical reduction of distracting reflectance for automotive vehicles.

**S2. Application.** This standard applies to sedans, buses, carryalls, station wagons, and light trucks up to 10,000 pounds G.V.W.

**S3. Standard characteristics.** Standard methods, tentative methods, and tentative recommended practices and the American Society for Testing and Materials, ASTM D 307, D 523, D 791, D 1535, E 97, and the SAE Standard J826, form the basis for this Federal Standard.

**S3.1 Definitions.**

**S3.1.1 Field of view.** With the operator's seat in its rearmost position, the operator's field of view is defined as that area forward of a line extending to the sides of the vehicle from the point at which the back pan of the SAE J826 three-dimensional manikin makes contact with the operator's seat back.

**S3.1.2 Glare.** The visual effect of any dilutes or competes with the central attention signal on which attention is being focused.

**S3.1.3 Specular gloss.** The luminous fractional reflectance of a specimen at the specular direction.

**S3.1.4 Luminous directional reflectance (Munsell value).** Ratio of flux reflected to that from a perfect diffuse reflector similarly illuminated and viewed.

**S3.1.5 Saturation (Munsell chroma).** The attribute of color perception that expresses the degree of departure from gray of the same lightness. All grays have zero saturation.

**S3.2 Instrument panels.** The specular gloss of the surface of the material used for instrument panel top surfaces and appurtenances thereon which can produce glare in the windshield shall not exceed 30 units maximum, measured by the 85-degree method of ASTM D 523, or equivalent.

**S3.3 Luminous directional reflectance (Munsell value).** The luminous directional reflectance of the surface of the material



used for instrument panel top surfaces shall not exceed 30 percent (which is equivalent to a Munsell value less than 6.0/-), when measured as described by ASTM D 307, D 791, D 1535, E 97, or equivalent.

**S3.4 Saturation (Munsell chroma).** The Munsell chroma of instrument panel top surfaces shall be no more than /6.

**S3.5 Windshield wiper arms and blades.** The specular gloss of the surface of the material used for windshield wiper arms and wiper blades in the operator's field of view shall not exceed 40 units maximum, measured by the 20-degree method of ASTM D 523, or equivalent.

**S3.6** The specular gloss of the surface of the material used for instrument bezels, windshield molding, control devices, horn ring, rearview mirror mounting hardware, trim hardware, etc., in the operator's field of view shall not exceed 40 units maximum, measured by the 20-degree method of ASTM D 523, or equivalent.

**S3.7** Instruments, control devices, etc., shall be so located so as to present a minimal reflection into the windshield in the operator's field of view under daylight and night driving conditions.

[Federal Standard No. 515/14a]

#### CONTROL OF AIR POLLUTION FROM AUTOMOTIVE VEHICLES

**S1. Purpose and scope.** This standard establishes requirements for the control of emissions from new motor vehicles and new motor vehicle engines which are likely to cause or contribute to air pollution.

**S2.** This standard applies to sedans, carryalls, station wagons, and light trucks up to and including ½-ton pickup or equivalent equipped with engines of 50 cubic inch displacement or over.

**S3. Standard characteristics.** The proposed regulations of the Department of Health, Education, and Welfare, Control of Air Pollution From New Motor Vehicles and New Motor Vehicle Engines, published in the FEDERAL REGISTER on December 31, 1965 (30 F.R. 17192), form the basis for this standard.

**S3.1** All automotive vehicles and engines covered by this standard shall be equipped with integral or ancillary control systems to provide control of emissions in accordance with the requirements set forth in the regulations cited in S3.

[Federal Standard No. 515/17a]

#### REARVIEW MIRROR(S) FOR AUTOMOTIVE VEHICLES

**S1. Purpose and scope.** This standard establishes requirements for rearview mirror(s) for automotive vehicles to provide reasonably unobstructed driver vision to the rear.

**S2. Application.** This standard applies to sedans, buses, carryalls, station wagons, and to light trucks up to 10,000 pounds G.V.W. Vehicles with bodies designed without rear windows and vehicles that require more than one outside mirror and truck-type vehicles with small rear windows are excepted from the requirement for an inside rearview mirror.

**S3. Requirements.** The rearview mirrors shall provide the driver with a clear, undistorted view of unit magnification under day and night operating conditions.

**S3.1 Inside rearview mirrors.**

**S3.1.1 Size.** The rearview mirror shall have a horizontal dimension which will provide the driver a view to the rear of the vehicle with a horizontal angle of no less than 20 degrees. The vertical angle shall be at least sufficient to provide a view of the road surface from a point not greater than 200 feet to the rear of the vehicle, to the horizon under conditions of a level road and with the vehicle occupied by the driver and four passengers in the case of sedans, carryalls, and station wagons or loaded to gross vehicle weight in the case of buses and light trucks where inside mirrors may be applicable.

**S3.1.2 Location.** The rearview mirror shall be designed and constructed to be mounted on the inside of the vehicle in such a manner as to provide the driver with a stable, readily distinguishable image under normal road conditions. The mirror shall be located as far forward along the longitudinal axis of the vehicle as the windshield, mount, and adjusting device will permit (buses excepted). The mirror and its supporting brackets shall be located above the forward horizontal line of sight, if possible, of a manikin which measures 33 inches from the "H" point to the top of the head and occupying the driver's seat set in the mid position, with due regard being given to the requirements of the vertical field of view to the rear (see S3.1.1). Extra large bus mirrors designed to serve an additional purpose of passenger surveillance shall be located with due consideration of the preceding requirements.

**S3.1.3 Mounting.** The mirror shall be mounted in the vehicle by means of a suitable supporting assembly of sufficient strength to provide a stable support for the mirror and shall be of a design which will minimize injury potential to occupants. The mount, if in the impact area, shall be designed to break away or collapse upon the application of a force in excess of 90 pounds, in the direction applied by the head of a belted occupant. The head impact area shall be established through the use of type 1 seat belt assembly restrained manikins or other test devices having "H" point to top-of-head dimensions of 33 inches and 29 inches. Adjustable seats shall be in the extreme forward position for the indicated 33 inch device and in the extreme rearward position for the indicated 29 inch device. The impact area shall be that included between the arcs formed by the top-of-head point when each device is swung forward and also 45 degrees to each side of the longitudinal axis through each normal seating position. Rigid mounts shall break in such a manner as to leave no protruding residuals. The rim of the mirror or its supporting bezel shall have an edge radius of not less than 0.125 inch. The mount shall provide for universal adjustment of the mirror to accommodate any size driver in any available seat position.

### S3.2 Outside mirrors.

S3.2.1 *Size.* The outside mirror reflecting surface shall have a minimum nominal diameter of 5 inches if of circular design. Rectangular mirrors shall have a minimum nominal horizontal dimension of 5 inches and a vertical dimension sufficient to provide the driver a view of the road surface from a distance of not more than 35 feet to the rear from the eye of the driver of the vehicle and to the horizon on a level road under normal load conditions. The 35 feet shall be measured from the position of the eye of the driver to the reflecting surface, then to the roadway to the rear of the vehicle.

S3.2.2 *Mounting.* The outside rearview mirror shall be designed and constructed to be mounted on the left outside of the vehicle in such a manner as to provide the driver with a stable, readily distinguishable image under normal road conditions and shall be so located as to require not more than 60 degrees combined head and eye movement with driver's seat in forward position. The outside mirror shall provide the operator, with seat in full forward position, a view of the side of the vehicle on which mounted. The mirror shall not be obscured by the unwiped portion of the windshield or by the corner pillar. The mirror shall be readily adjustable to accommodate different size drivers, seat positions, and load conditions. The mirror and mount shall be designed, constructed, located, and mounted so as to minimize pedestrian injury potential.

S3.2.3 *Additional outside rearview mirror.* Station wagons, carryalls, buses, and trucks shall be provided with an additional outside rearview mirror to provide driver vision to the right rear areas adjacent to the vehicle obscured by vehicle design or load conditions. The visual characteristics of the right outside mirror shall conform to the requirements of the left outside mirror except that the restriction on combined head and eye movement may be relaxed to the extent dictated by vehicle design. Design, construction, location, and mounting of the right outside mirror shall be symmetrical to the left outside mirror except that where necessary, consideration may be given to location and mounting problems dictated by vehicle design.

S3.2.4 *Wide angle mirror.* When specified, an auxiliary wide angle (convex) mirror may be incorporated in the same mount as the standard mirror to provide an additional close-in field of vision required under certain operating conditions. The auxiliary mirror shall be incorporated in such a manner as not to interfere with the visual field of the standard mirror.

S3.3 *Mirror construction.* The reflective medium shall be of a material which will resist abrasion and erosion incident to accepted cleaning practices. The surfaces of the material shall be so finished as to provide and maintain a distortion free reflected image. Front or second surface reflectance may be used. The reflectance value of the reflective film employed shall be not less than 50 percent. Inside mirrors may be of the selective position prismatic type, in which case the reflectance value in the night driv-

ing, high-glare position shall be not less than 4 percent.

[Federal Standard No. 515/18]

### WINDOW AND DOOR CONTROLS FOR AUTOMOTIVE VEHICLES

S1. *Purpose and scope.* This standard establishes the requirements for the location and construction of the controls for windows and doors.

S2. *Application.* This standard applies to sedans, carryalls, station wagons, and light trucks up to 10,000 pounds G.V.W.

S3. *Requirements.* Injury potential shall be minimized by constructing, locating or mounting of the controls in such a manner as to reduce the likelihood of injury to the head, torso and legs of lap belted occupants of rear and front seats. The occupant protection area shall be established through the use of type 1 seat belt assembly restrained manikins or other test devices based upon the equivalent to "H" point to top-of-head dimensions of 33 inches and 29 inches. The occupant protection area shall be that included between the arcs formed by the top-of-head point and torso when each device is swung forward and also 90 degrees to each side of the longitudinal axis through each normal seating position and the forward movement of the knees and legs of outside occupants.

S3.1 The controls shall be located within reach of the seat belted occupant nearest the door. Controls located away from or shielded from the impact area or recessed within the panel or armrest in such a manner to reasonably minimize the likelihood of contact by lap belted occupants shall be considered to provide an acceptable degree of protection.

S3.2 Door handle controls not meeting S3.1 shall be constructed so that they have a contact area of not less than 2 square inches substantially vertical, with minimum radii of 0.125 inch. Window control knobs not meeting S3.1 shall have a minimum contact area of not less than 1 square inch, with minimum edges radii of 0.125 inch. All controls shall have a maximum extension from the panel of 1 inch.

S3.3 Controls not meeting S3.1 or S3.2 shall be constructed of material which will deflect within 0.375 inch of the panel or detach by a force of 90 pounds leaving no residual protrusions beyond the panel surface on which mounted.

[Federal Standard No. 515/19]

### ASH TRAYS AND LIGHTERS FOR AUTOMOTIVE VEHICLES

S1. *Purpose and scope.* This standard establishes the location and construction of ash trays and lighters when installed in automotive vehicles to afford a reasonable degree of protection for front and rear seated occupants wearing type 1 seat belt assemblies.

S2. *Application.* This standard applies to sedans, carryalls, and station wagons.

S3. *Requirements.* Injury potential shall be minimized by locating, constructing, or mounting ash trays and lighters in such a manner as to minimize the likelihood of injury to an occupant's head, torso, or leg



upon impact. The impact area for both front and rear seats shall be established through the use of type 1 seat belt assembly restrained manikins or other test devices having the equivalent to "H" point to top-of-head dimensions of 33 inches and 29 inches. The impact area shall be that included between the arcs formed by the top-of-head point and torso when each device is swung forward and also 90 degrees to each side of the longitudinal axis through each normal seating position and the forward movement of the knees and legs of outside occupants. This area to be determined with front seat in all normal positions.

S3.1 Ash trays and lighters located away from or shielded from the impact area or recessed within the panel or armrest in such a manner to minimize the likelihood of contact of the head, torso or leg of lap belted occupants shall be considered to provide a reasonable degree of protection.

S3.2 Ash trays not meeting S3.1 shall have a contact area of not less than 2.0 square inches with a minimum edge radius of 0.125 inch. Lighters not meeting S3.1 shall have a contact area of not less than 1.0 square inch with a minimum edge radius of 0.125 inch and maximum extension from the panel of not more than 1 inch.

S3.3 Ash trays and lighters not meeting S3.1 or S3.2 may be constructed of material which will either deflect flush within not more than 0.375 inch of the panel or be pushed flush with the surface or detach from its mounting by the application of a force not to exceed 60 pounds.

[Federal Standard No. 515/20]

#### ARMRESTS FOR AUTOMOTIVE VEHICLES

S1. *Purpose and scope.* This standard establishes requirements for armrests when installed in automotive vehicles to afford a reasonable degree of protection for front and rear seated occupants wearing type 1 seat belt assemblies.

S2. *Application.* This standard applies to sedans, carryalls, station wagons, and light trucks up to 10,000 pounds G.V.W.

S3. *Requirements.* Injury potential shall be minimized by constructing and mounting the arm rests in such a manner as to minimize or spread the area of contact of the body with any rigid elements of the arm rests. Occupant protection area for both lateral and longitudinal impact shall be determined by the use of a type 1 lap belt restrained three dimensional 95th percentile male manikin or other equivalent test device for both rear and front seats with the front seat in all normal positions.

S3.1 The inside exposed surface of the arm rests shall be substantially vertical. In any normal position of the seat, the substantially vertical surface of the arm rest shall provide an area of broad contact with the pelvic region of not less than 2.0 inches vertically. The top and sides of the arm rests shall be covered with energy absorbing material, if not constructed of such materials. The arm rests shall not have any sharp, narrow, or protruding rigid edges in the contact area exposed or under the energy absorbing material. The top and sides of the mounting

bracket shall not have any rigid edges of less than 0.750 inch radius.

S3.2 Arm rests not meeting S3.1 shall be constructed of flexible material which will deflect toward the panel and provide a resultant contact area of the pelvic region of no less than that specified in the preceding.

S3.3 Accessories or equipment attached to the arm rests shall meet the safety requirements applicable to such equipment or accessories and shall not nullify the injury reducing intent of any of the preceding.

[Federal Standard No. 515/21]

#### PADDING FOR AUTOMOTIVE SEAT BACKS

S1. *Purpose and scope.* This standard establishes requirements for seat back frames to be so constructed as to absorb and dissipate energy imparted to top and back by the upper torso, limbs, and head of forward facing passengers restrained by type 1 seat belts seated in rear thereof in the event of collision.

S2. *Application.* This standard applies to sedans, school buses, carryalls, station wagons, and to light trucks up to 10,000 pounds gross vehicle weight with provisions for forward facing passenger seating within the cab in rear of the front seat. The guardrail behind the driver's seat in school buses shall be considered as a seat back frame for the purpose of this standard.

S3. *Requirements.*

S3.1 The top and back of the front seats in sedans, the top of the back of forward facing seats, except the rear-most seat, in carryalls and station wagons, the top and backs of all forward facing seats in school buses, except the driver's seat and the rear-most seats, and the guardrail behind the driver's seat in school buses, shall be so constructed and padded with slow return impact absorbing material as to limit the force buildup on that portion of the human body coming in contact therewith, to a maximum of 80 gs in 60 milliseconds at an impact velocity rate of 22 feet per second, excluding the first 3 milliseconds of the time curve.

S3.2 The specific areas to be padded shall be determined by the use of type 1 seat belt assembly restrained manikins or other test devices having "H" point to top-of-head dimensions of 33 inches and 29 inches. These manikins shall be swung through a vertical arc simulating the lap-belted occupant in each seating position, with the front seat in the rear-most position. They shall also be swung through a 45 degree angle to each side of the longitudinal axis of the vehicle. The arc plane so described shall establish the seat top and back areas under consideration in this standard. The headrest shall be considered if applicable. Seat spacing in school buses shall be established at 28 inches for test purposes.

[Federal Standard No. 515/22]

#### HEADRESTS FOR AUTOMOTIVE VEHICLES

S1. *Purpose and scope.* This standard establishes the requirements for front seat headrests in passenger carrying vehicles to afford a reasonable degree of protection from neck injuries (whiplash) in the event of a rear-end collision.

**S2. Application.** This standard applies to sedans and station wagons. (Outside seating positions of front seats.)

**S3. Standard characteristics.** The Society of Automotive Engineers Inc., Manikins For Use in Defining Vehicle Seating Accommodations, SAE J826, forms a basis in part for this Federal Standard.

**S3.1 Definition.**

**S3.1.1 Headrest.** A well padded area provided for head support.

**S3.2 General.** The headrest may be designed as an extension of the seat back or an attachment to the seat back. The headrest may or may not provide for transversely adjustable mounting. If a transversely adjustable mounting is not provided, the width specifications in S3.3.1 shall apply.

**S3.3 Requirements.**

**S3.3.1** The minimum width of the headrest shall be 10 inches and the average width shall be at least 12 inches, both based on the forward facing surface that can be contacted by the head of the occupant. The top of the headrest shall be at least 25 inches above the "H" point of the three dimensional manikin (SAE J826).

**S3.3.2** The headrest, including any supporting structure that can be contacted by the head of an occupant of the vehicle, shall be constructed of or covered with a material of impact-absorbing qualities on all outer surfaces.

**S3.3.3** Structural deflection of the headrest resulting from contact in rear-end collisions is allowable, except that rebound action shall be minimized. The headrest and its supporting structure shall have sufficient strength to withstand a force no less than 200 pounds in either fore or aft direction without structural failure, although a limited amount of permanent distortion is permissible.

[Federal Standard No. 515/23]

**SIDE MARKER DEVICES FOR AUTOMOTIVE VEHICLES**

**S1. Purpose and scope.** This standard establishes requirements for side marker systems to assure notice and recognition of vehicles from lateral positions during darkness and inclement weather.

**S2. Application.** This standard applies to sedans, carryalls, and station wagons.

**S3. Requirements.** The side marker systems shall consist of either an independent electrical system or an electrical system, in combination with or utilizing head and/or tail lamps, or a reflective system, or a combination of both electrical and reflective systems. The side marker device housings or mounting plates shall be antirust material, or sufficiently plated or finish coated to be noncorrosive. As applicable, these requirements shall conform to the Uniform Vehicle Code, Chapter 12. The lateral included angles of visibility of the side markers shall be from the lateral angle toward the front of the vehicle when head lamps are no longer visible, to the lateral angle toward the rear of the vehicle when tail lamps become visible.

**S3.1 Electrical side marker devices.** The electrical side marker system shall be securely mounted. The system lamps shall be a minimum of one at or near the front and one at or near the rear edges on each side of the vehicle. The mounting height shall be not less than 16 inches measured from the center of such lamp to the level ground upon which the vehicle stands without a load. The electric side marker lamp colors shall be white to amber for the front and red for the rear and they shall be steady burning simultaneously with the head and tail lamps and parking lamps. The electric lamps shall be capable of being distinguished under normal atmospheric conditions and at the time lights are required to provide recognition at all distances between 500 and 50 feet from the lateral sides of the vehicle. Minimum photometric candlepower shall be in accordance with table 1, SAE Standard J592.

**S3.2 Reflective side marker devices.** The reflective side marker devices shall be securely mounted on each side, one at or near the front and one at or near the rear edge of the fenders or body of the vehicle, as applicable. The reflective devices shall be mounted at a minimum height of 16 inches measured from the center of the device to the level ground upon which the vehicle stands without load. Reflective devices shall be of such size and have such characteristics as to be readily visible at night time from all distances and at the lateral angles specified within 600 feet to 100 feet from the vehicle when illuminated by the beams of head lamps of the observer's vehicle. Minimum candlepower reflectance measurement shall be in accordance with class A, SAE Standard J594c.

**S3.2.1 Reflective device colors.** The color of the reflective devices shall be white to amber for the front and red for the rear of the vehicle.

**S3.3 Electrical and reflective side marker devices.** The electrical and reflective type side marker device, when combined, shall conform to the preceding paragraphs.

[Federal Standard No. 515/24]

**REAR WINDOW DEFOGGER FOR AUTOMOTIVE VEHICLES**

**S1. Purpose and scope.** This standard establishes requirements for rear window defogging, designed to achieve the most practical vision through the rear window.

**S2. Application.** This standard applies to sedans.

**S3. Requirements.** The rear window defogger system shall be permanently installed, to provide for the removal of fog from inside the rear window caused by atmospheric conditions and passenger loading conditions, in the vehicle. The system shall be of a capacity to clear a minimum area of 75 percent of the operators viewed area of the rear window as reflected in the rear view mirror.

**S3.1 Testing.** The defogger system shall remove fogging under any atmospheric condition and with full passenger loading within a 10-minute period.



[Federal Standard No. 515/25]

ROLL BARS FOR AUTOMOTIVE VEHICLES

**S1. Purpose and scope.** This standard establishes requirements and test procedures for roll bars installed on specific automotive vehicles to afford a reasonable degree of occupant protection in a rollover.

**S2. Application.** This standard applies to light trucks up to 10,000 pounds G.V.W. of the utility type with open bodies, and those with enclosures made of canvas, metal, fiber glass, or plastic.

**S3. Requirements.** The roll bar shall be designed for each manufacturer's product to establish the width, height, clearances, and proper strengths of the structural members required. The roll bar shall be constructed to guard the operator and passenger compartment, or compartments, within a rigidly attached structural bar unit assembly. The strength and size shall be as required for each vehicle type and weight with the specified number of occupants for which the vehicle is designed to be used and for their maximum protection without critical deformation or critical encroachment on the operator or passenger compartments. To the extent practical, the roll bar structure shall be located to preclude contact by the heads of belted occupants. If this is not possible, the roll bars shall be covered with energy absorbing cushioning material. The roll bar structure designs shall not impair the vehicle operator's vision or body movements while operating the vehicle. Unless otherwise specified, vehicle manufacturers may eliminate a fold down windshield on the utility truck and incorporate a new designed fixed windshield strengthened to become part of a roll bar structure.

**S3.1 Testing.** The testing requirements for the area of critical encroachment shall be measured from the "H" point of a manikin with "H" point to top-of-head dimension of 33 inches. Performance requires a manikin, seat belt restrained, for each passenger and operator position in the vehicle and with the vehicle tested to the SAE Recommended Practice of SAE J857. For the hill rollover test, specific speed of 50 miles per hour shall be used.

[Federal Standard No. 515/26]

FUEL TANKS AND TANK FILLER PIPES FOR AUTOMOTIVE VEHICLES

**S1. Purpose and scope.** This standard establishes requirements for the integrity and security of fuel tanks and tank filler pipes for automotive vehicles.

**S2. Application.** This standard applies to sedans, buses, station wagons, carryalls, and light trucks up to 10,000 pounds G.V.W. Excluded are utility vehicles of the three-wheel type.

**S3. Standard characteristics.** The SAE Recommended Practice for Barrier Collision Tests, SAE J850 forms the basis for section S3.1 of this standard as modified in S3.1.1.

**S3.1 Fuel tanks and tank filler pipes** shall be constructed so that they will not rupture, be totally displaced from installed positions, or discharge fuel from the filler pipe, under any condition of tank capacity loading, when subjected to longitudinal and/or lateral acceleration/deceleration forces developed at their installed position, during the SAE J850 barrier collision test at 30 miles per hour.

**S3.1.1** Other testing methods, such as high capacity acceleration facilities, giving equivalent results, may be utilized in lieu of the SAE J850 barrier collision test.

[F.R. Doc. 66-2473; Filed, Mar. 7, 1966; 9:36 a.m.]

Mr. Moss. On the matter of tires did you determine that these two-ply tires were safe?

Mr. ABERSFELLER. The current tire standards authorize a certification from the industry that they meet the requirements.

Mr. Moss. I will ask it again.

My question is, is this two-ply, that I believe I quote correctly is rated four-ply, supplied as original equipment, adequate for Government standards?

Mr. ABERSFELLER. In our judgment it meets the current specifications.

Mr. Moss. Let me ask you this. In your judgment is it adequate for safe operations?

Mr. ABERSFELLER. It is not.

Mr. Moss. It is not adequate for safe operations?

Mr. ABERSFELLER. No.

Mr. Moss. I could not agree with you more. I was horrified when I looked at it. And to think I am driving on it. I don't want to ride very fast on anything as flimsy as that. I don't think anyone else should be driving on one either.

Thank you very much.

Mr. FRIEDEL. Mr. Younger.

Mr. YOUNGER. Thank you.

Mr. FRIEDEL. Before you start, on your 17 questions here No. 7 is a 4-way flasher.

Mrs. ABERSFELLER. Yes, sir.

Mr. FRIEDEL. Are they what you call a directional signal?

Mr. ABERSFELLER. Yes, that is the position where all directional signals work at the same time.

Mr. YOUNGER. As I recall when we first enacted the safety devices for the cars purchased by the Government it was hoped that once we established such safety devices for the largest buyer that they would then filter down and become standard for all cars. That was the hope that we had. I am not sure that we have accomplished too much in that way.

Have you kept any record of your accidents?

Mr. ABERSFELLER. Have we kept any record of our accidents?

Mr. YOUNGER. Yes.

Mr. ABERSFELLER. Yes.

Mr. YOUNGER. By year how did those accidents go? Can you give us any figures by year?

Mr. ABERSFELLER. For 2 years. The fatality rate for 100 million miles went up from slightly over two to 2.4 from 1964 to 1965.

That compares with a nationwide average of 5.7 fatalities per 100 million miles driven.

Mr. YOUNGER. Was that after the 17 safety devices were installed?

Mr. ABERSFELLER. Mr. Younger, the 17 safety devices have not yet been installed. The law required that the standards become effective a year and 90 days from the date that we published the standards. The first 17 that we published on June of 1965 will be effective for all vehicles we buy on or after September 28, 1966.

Mr. YOUNGER. In other words, they will be on the 1966 models that you buy?

Mr. ABERSFELLER. On the 1967 models.

Mr. YOUNGER. How do you buy your cars?



Mr. ABERSFELLER. By advertised bid.

Mr. YOUNGER. Do you split them up between the four manufacturers or if one manufacturer comes in with a low price for all of the bids does it get them or how do you handle that, select the seller?

Mr. ABERSFELLER. If one manufacturer comes in low for all our requirements he gets the award.

Mr. YOUNGER. For all the requirements?

Mr. ABERSFELLER. For our total requirements, yes, sir.

Mr. YOUNGER. Do you think that the installation this year of these 17 safety devices which you have so carefully worked out, do you think that that will influence the manufacturer to put them on all passenger cars?

Mr. ABERSFELLER. According to the press releases and conversations I have had with responsible individuals in the industry they have already introduced this year in the 1966 models, which are currently being sold, many of the safety devices we prescribe as mandatory for the Federal fleet on September 28, 1966.

Mr. YOUNGER. Do you have any figures yet as to the difference in cost of the cars after they—after these 17 safety devices have been installed?

Mr. ABERSFELLER. No.

Mr. YOUNGER. Compared with the price of the 1965 models?

Mr. ABERSFELLER. No, sir. The Senate committee asked us to get that information from the industry. General Motors and Ford responded. The approximate figure as I recall it in General Motors letter—it varied of course depending on the car and a lot of other factors but it would vary between \$50 and \$75 or \$80. Ford Motor Co. pointed out that notwithstanding their voluntary adoption of these for the public that the cost of a particular model car, and they illustrated this, was less than it was the year before.

We had estimated that the cost of the 17 excluding the air pollution device, would be somewhere in the neighborhood of \$50 to \$75 when we set out to do the standards but I should like to point out that there is vast difference of ingenuity with respect to the four major motor companies.

We have seen evidence and we are consulted regularly on the standards we are prescribing, of the items developed which would meet our standards that are low in cost, in pennies, and other on which engineers seem to be struggling which would seem to us to cost dollars.

So, we have never proposed to develop what one would call a design standard. Our standard simply prescribes an end result, the fact that you can and shall have a dual braking system, as an example.

We do not prescribe anything other than that except that one set of wheels must work at all times. How one accomplishes this is up to the industry. In addition to that we have prescribed that a red light shall go on when the oil pressure is down in one of the cylinders, in other words, showing failure.

How one develops the technique for this light going on is a design and engineering feature and it will vary.

Mr. YOUNGER. I am impressed with the progress that you have made. I am wondering whether proceeding ahead along this same line working out the standards and insisting that those standards be on the cars purchased by the Government will not affect all passenger cars.

Mr. ABERSFELLER. Here again we get to the proposition, Mr. Congressman, of the question of a standard and really what effect it has.

There have been statements made in the past by people classified in some quarters as experts that dashes of 12 and 15 years ago would meet the standards which GSA has established. Without commenting on the propriety or the accuracy of that statement, the point is that there is an opportunity without a standard for deterioration.

That is to say, you can produce an automobile or a characteristic in an automobile 1 year which will meet a requirement but without a standard it can deteriorate to something less than that in subsequent years.

For that reason I feel strongly that standards are an essential ingredient. This has nothing to do with how good or how bad they are at the moment but the principle of standards is something we subscribe to heartily for that major purpose.

Mr. YOUNGER. I have one other question. Have you had any difficulty or resentment or inactivity on the part of any of the manufacturers to accede to these standards in order to bid on Government cars?

Mr. ABERSFELLER. I am taking a moment because I want to choose my words carefully. In the normal sense of the word we have not had resentment.

Mr. YOUNGER. What is that?

Mr. ABERSFELLER. We have not had resentment in the normal sense of the word. I do not want to leave the committee, however, with the impression that there have not been differences of opinion.

These have existed in the past and I dare say will continue to exist. So far as we are concerned at this point in time we have had excellent cooperation from the industry. If I were to comment at all in an adverse sense my comment would be that there has not been enough offered from the industry's point of view as to areas that should be explored. Most of which has been developed now has been notions and ideas that we started with.

But they have been spending a good deal of time doing the work we have asked them to do. I think it is somewhat uncharitable to criticize them for not having more input than they have had. Mr. Roche, of General Motors came down to visit us and asked what more they could do which I thought was fine cooperation.

We told him some things we thought should be done and those have been done. The vice presidents of the companies are known to me. I have talked with them personally. I have nothing but the greatest admiration for them and their cooperation has been good. The professional safety people in the industry are known to me.

I have talked to them. I am well impressed and pleased with the cooperation they have provided. Again I simply want to underscore that we do not always agree and I think this is good.

Mr. YOUNGER. Thank you very much. I think you have made a real contribution to this hearing.

Mr. FRIEDEL. Mr. Pickle.

Mr. PICKLE. Thank you, Mr. Chairman.

These standards which you have instituted on GSA automobiles, are they new automobiles?

Mr. ABERSFELLER. Yes, sir.



Mr. PICKLE. Can you tell me if you have any plans to put the same standards in effect on any used cars or other cars which you have on hand at that time?

Mr. ABERSFELLER. Yes, sir; we do have some plans. The plans run something like this: One of the functions of the Advisory Panel that I spoke about earlier will be to undertake a review of the safety standards to determine which of those can be applied to the existing Federal fleet.

Mr. PICKLE. The 17 standards that you have put into effect, of some 25 or 30 that you contemplate, do you have any indication in the record which show how much increased cost per automobile this has amounted to as far as the Government is concerned?

I assume there would be some increase.

Mr. ABERSFELLER. It is difficult to tell, Mr. Pickle. There were some excise tax adjustments and a lot of other things but as best we can tell there were no increases to us for the vehicles that are now being delivered to us which have the voluntary application of standards on them.

We are paying, in other words, about the same money this year for vehicles that we paid last year.

Mr. PICKLE. With all these standards being met.

Mr. ABERSFELLER. Not all the standards. Let me clear up a point again, gentlemen. I am trying to point out that the industry has said "these standards meet." These are the industry's words. We have not tested them yet. In other words, a padded dash, we know that is being furnished because we can see the padding. But whether that padded dash meets the standards that we prescribe which will be effective next September is something that we do not yet know.

Mr. PICKLE. I am surprised that you have required such items as you list on pages 6 and 7, for example, dual operating braking system, standard bumper height, sweep design of windshield wiper, exhaust emission control, that these would not increase the cost of the automobile, that it comes out basically the same.

Is that correct?

Mr. ABERSFELLER. So far as we can tell; yes, sir. Mr. Pickle, there may be a matter of \$50 or \$60 here. We are paying a little over \$1,400 for a car that wholesales for \$1,800.

Mr. PICKLE. This may have been covered in the question which the gentleman from California asked. Do you have any records that show in this short period of time whether you have actually saved lives?

Mr. ABERSFELLER. Again the standards are not effective until next September.

Mr. PICKLE. I thought they were effective last June.

Mr. ABERSFELLER. No, sir; they were published last June but they are effective a year and 90 days from their publication.

Mr. PICKLE. Thank you.

Mr. FRIEDEL. Mr. Satterfield.

Mr. SATTERFIELD. No questions.

Mr. FRIEDEL. Mr. Mackay.

Mr. MACKAY. Thank you, Mr. Chairman.

I came in just a few minutes late.

Can you put a dollar cost on traffic accidents to the Government per year?

Mr. ABERSFELLER. I think in part, Mr. Mackay, it runs in the neighborhood of total cost, property and other, in the neighborhood of \$80 million.

Mr. MACKAY. The Government sustained that kind of loss?

Mr. ABERSFELLER. Yes, sir.

Mr. MACKAY. Do you have any record of how many Government employees were killed in Government vehicles?

Mr. ABERSFELLER. Yes. In the GSA fleet operation there were 10 killed in 1965. In total, there were 186 fatalities in 1964 in Government-owned vehicles.

Mr. MACKAY. That is excluding service personnel?

Mr. ABERSFELLER. That excludes service personnel under certain conditions.

Mr. MACKAY. Don't you believe that the quality of your discussion and our own role generally in Congress, too, would be vastly improved if we had some good data?

Mr. ABERSFELLER. Indeed.

(The following letter was subsequently received from the General Services Administration in response to a request by Congressman Mackay:)

GENERAL SERVICES ADMINISTRATION,  
Washington, D.C., May 26, 1966.

HON. JAMES A. MACKAY,  
House of Representatives,  
Washington, D.C.

DEAR MR. MACKAY: This is in reply to your letter of May 13, 1966, expressing interest in our efforts to improve the reporting procedures on accidents involving Federal vehicles.

On May 12, 1966, the General Services Administration held a meeting to discuss the development of a uniform centralized reporting system for automotive accidents. The meeting was attended by representatives of the Atomic Energy Commission, Department of the Army, Department of the Interior, U.S. Marine Corps, Departments of Commerce, Federal Safety Council, U.S. Air Force, Post Office Department, and the General Services Administration.

In summary, the meeting disclosed that these agencies do keep varying types of records on traffic accidents. However, no presently established system provides all the information that GSA requires for the development of adequate automotive safety standards. Further, there is no central reporting point where accident statistics are combined and analyzed.

GSA will work with other Federal agencies in establishing reporting requirements to obtain the data necessary for determining the need for specific safety standards and will issue regulations to provide for reporting it to us. We will obtain the accident statistics as soon as the agencies are able to implement an effective accident reporting system. The data will be available for the next phase of our development of safety standards, those for 1969 model vehicles.

As requested in your letter we have submitted to the Chairman of the House Committee on Interstate and Foreign Commerce current Interagency Motor Pool accident statistics for inclusion in the record covering the Committee's extensive hearings on traffic safety. These statistics for the approximately 40,000 vehicles in GSA's Interagency Motor Pool are as follows:

Beginning fiscal year—	Number of accidents	Accidents per M/miles	Number of fatalities	Fatalities per 100 M/miles	Property damage
1964.....	4,062	11.62	7	2.02	\$452,000
1965.....	4,793	11.61	10	2.42	500,000

We hope this information will be of assistance to you.

Sincerely yours,

ROBERT T. GRIFFIN,  
Assistant Administrator.



Mr. MACKAY. Now, Dr. Gikas made a very impressive appearance before this committee and he was very laudatory of your agency and how conscientious the GSA people are. He stated that he had run into some pretty noisy arguments from some of the industry representatives on features that he believed were vital. Industry representatives said there was no data to support him.

This data would be very helpful in resolving some of these arguments.

Mr. ABERSFELLER. Indeed, it would. Notwithstanding the fine work that has been done by Cornell and a wide variety of other people.

Mr. MACKAY. Has the Congress ever appropriated any money specifically to support the Roberts bill requiring GSA safety standards or are you having to do all of this out of the general appropriations?

Mr. ABERSFELLER. It is a little worse than that. We virtually absorbed it last year.

Mr. MACKAY. Is the answer "yes" or "no" to my question?

Mr. ABERSFELLER. The answer is "no."

Mr. MACKAY. In other words, Congress has not supported the safety thrust of that bill?

Mr. ABERSFELLER. In appropriations at this point, it has not.

Mr. MACKAY. Now have you been given authority by the law or have you on your own motion studied the elements in the traffic accident phenomenon other than the vehicle?

Mr. ABERSFELLER. Yes, we have.

Mr. MACKAY. How?

Mr. ABERSFELLER. By getting information from, and you, I gather, have seen it, Dr. Gikas' work, with regard to roads, with regard to certain other information available from other statisticians regarding the driver.

Mr. MACKAY. You are helpless in putting that information to work?

Mr. ABERSFELLER. We are not helpless with regard to the response we have as pertains to the Federal fleet. We do have a responsibility and exercise it with regard to disciplining drivers, with regard to being certain that vehicles are inspected, that they are maintained. We have nothing, of course, that we can do with roads except those which are on Government property.

Mr. MACKAY. There has developed in the course of this hearing a tremendous interest in the maintenance of the vehicle in operation on American roads, the car after it has gotten into the hands of the consumer.

Have you published any standards as to what you think is necessary by way of periodic inspection and the nature of the inspection necessary to keep a car in safe condition?

Mr. ABERSFELLER. Yes, we inspect the Government fleet which GSA is responsible for every 2,000 miles. There are specified areas that must be checked, normal things, lubrication and so forth, and the safety items.

Mr. MACKAY. Are you familiar with any studies that the Bureau of Public Roads has on uniform reporting of traffic accidents?

Mr. ABERSFELLER. No, sir.

Mr. MACKAY. Is there any mechanism for the coordination of the information by the several departments concerned with safety in the Federal Government that you know about?

Mr. ABERSFELLER. With regard to statistics, you mean?

Mr. MACKAY. No, just total safety.

Mr. ABERSFELLER. Yes, the President has directed the Secretary of Commerce to coordinate.

Mr. MACKAY. I am talking about last year, was there any clearing point for information?

Mr. ABERSFELLER. No, sir.

Mr. MACKAY. Because it came to my attention that a study has been made and an excellent uniform report form has been designed. Of course if we gather data we have to agree on what data is needed, and how we go about gathering it.

Mr. ABERSFELLER. Yes, sir.

Mr. MACKAY. Of course you have no responsibility beyond the Government fleet? In other words, the Congress has really charged you for looking out for the Government but not looking out for the people.

Mr. ABERSFELLER. That is correct.

Mr. FRIEDEL. Mr. Gilligan?

Mr. GILLIGAN. No questions.

Mr. FRIEDEL. Mr. Farnsley?

Mr. FARNSLEY. I have some propaganda to give you which I wish you would take home and read—

Mr. ABERSFELLER. Thank you.

Mr. FARNSLEY (continuing). On your own time. I would like to ask you a question—a friendly question.

Have you classified or can you tell me your opinion about front wheel disk brakes? Have you looked into those pro or con?

Mr. ABERSFELLER. We have looked into them but only briefly, sir. This is an item which is most attractive to us in improving the braking of automobiles. We have not formed any conclusion on disk brakes.

Mr. FARNSLEY. Obviously, two main brake cylinders not only make it safer for a passenger if something happens, but helps to avoid accidents. Have you any other things that you are thinking about other than disk brakes? Are there any other things that look like they have promise?

Mr. ABERSFELLER. Yes sir.

Mr. FARNSLEY. Is it secret?

Mr. ABERSFELLER. No sir. We like to have people know about it. One of the things along the disk brake line, Mr. Farnsley, is the matter of a nonslipping brake. This would be similar to the aircraft brake.

Mr. FARNSLEY. That means wheels that will not lock?

Mr. ABERSFELLER. Yes, sir; a nonlocking brake. We also have a strong feeling about the inside of the automobile, the recess of the package shelf so that the packages can't fly about in the car.

As I mentioned in the opening statement regarding the placement of the gear shift lever and knobs and a myriad of things one sees in the front of a car. It is especially significant for a passenger in the front seat that if you get a left side impact they move into what I always call the death valley triangle formed by the steering column and the dash.

This, of course, is very dangerous. We would hope to improve this. Lights could be improved. We have proposed standards this year for marking the outside, the profile of the car.

The upper torso restraining device. We now have the lap belt which serves a very useful purpose but we have to recognize the fact



that people will not always use the lap belt. So we are concerned with upper torso restraining devices which in more simple language simply provides restrain for the upper part of the body so that in an accident it does not move forward. This is difficult, frankly, to develop. The headrests are in this year. The roll bar is in this year.

Mr. FARNSLEY. The roll bar is only on some types of vehicles.

Mr. ABERSFELLER. Yes, sir; on an open-type vehicle, jeep-type vehicle. We also have developed this year for two-door cars a requirement where the passenger seat will lock in place so that in the event of a collision it can't move forward and force the person into the dash.

Mr. FARNSLEY. Is the driver's seat locked, too?

Mr. ABERSFELLER. Yes; both will lock.

Mr. FARNSLEY. You are doing fine. From what I know about it you are on the right track. Good luck.

Mr. ABERSFELLER. Thank you, sir.

Mr. MACKAY. We have been asked to spend \$700 million to do certain things. The administration brought in no expert testimony to contend that if we do those things we should get results. You have a history of applying safety standards. Have we gotten any results?

Mr. ABERSFELLER. Beg pardon?

Mr. MACKAY. Do you have any studies that show we have gotten results out of the GSA program?

Mr. ABERSFELLER. Results in the sense of saving lives?

Mr. MACKAY. Yes.

Mr. ABERSFELLER. No, sir; because again, the standards are not in effect until September 1966.

Mr. MACKAY. Thank you.

Mr. FRIEDEL. Thank you very, very much.

Mr. MOSS. Mr. Chairman, I have some more questions, as I indicated in the beginning, that I want to ask this witness.

I was interested in the discussion here of increased cost. You have had no items that would bring about increased cost at this time, have you?

Mr. ABERSFELLER. Yes; we have had volunteered to us several items that are now standard.

Mr. MOSS. That are now standard in your cost. How do you mean volunteered to you? What are they?

Mr. ABERSFELLER. As an example, the industry this year chose to make seat belts standard. In the past, our vehicles were provided with anchorages only.

Mr. MOSS. That was general, across the country?

Mr. ABERSFELLER. Exactly. We are getting production models.

Mr. MOSS. So there is no great advantage to the GSA as a buyer of automobiles?

Mr. ABERSFELLER. No advantage at all. We are simply getting what everyone else is getting.

Mr. MOSS. So there has been nothing to put you in the position of your having to face an increased price at this point. Now when the standards become effective in September, I imagine in the discussion you have had, the question of cost entered into determining whether your entire shopping list of safety features was economically feasible?

Mr. ABERSFELLER. The matter of cost has not yet come into consideration. It will at a point in time.

Mr. Moss. In discussions as to which items would be incorporated in the list submitted by GSA?

Mr. ABERSFELLER. Not at this point, Mr. Moss; no, sir. None of the items that were dropped were dropped because they might cost too much.

Mr. Moss. Looking at this list of 17 items, a lot of these things are matter of change in design and might actually in the design process reduce rather than increase the cost.

Mr. ABERSFELLER. That is possible; yes, sir.

Mr. Moss. It would be as reasonable to expect that result as to expect the opposite, would it not? The fact that you put safety glass in—there is safety glass in all automobiles sold today, isn't there?

Mr. ABERSFELLER. Well—

Mr. Moss. Isn't there?

Mr. ABERSFELLER. No, sir. The term "safety glass" is used; yes.

Mr. Moss. Are you talking about laminated glass?

Mr. ABERSFELLER. We are talking about a glass that meets a specific requirement when hit with a particular force it shall not shatter, break, and so forth.

Mr. Moss. Are you talking of a tempered glass or laminated glass, a sandwich-type construction where you use a plastic middle and glass top and bottom or are you talking of a tempered glass where through heat treatment you strengthen the glass?

Mr. ABERSFELLER. The current requirement in the standard is for either one, laminated or tempered on the sides and laminated in the windshield.

Mr. Moss. You have certain design standards now. Are these beyond those normally met by the industry?

Mr. ABERSFELLER. No.

Mr. Moss. Then there should be no expectation that any increased cost would occur there. Safety door latches, are you requiring something different than the latch we are now told is standard in most automobiles?

Mr. ABERSFELLER. Well, there are increased strengths over what had been the SAE standard before.

Mr. Moss. Is not this SAE standard general throughout the industry?

Mr. ABERSFELLER. I don't think in every instance they were; no, sir.

Mr. Moss. The fact is SAE standards are not general throughout the industry.

Mr. ABERSFELLER. Not always.

Mr. Moss. They are not necessarily predicated on a safety requirement or standard. Impact-absorbing steering wheel, clearly that is going to add to the cost, at least we would anticipate although in volume production, again I don't know the mechanics of it, whether it could result in lesser cost.

Mr. ABERSFELLER. I don't think it need add to the cost.

Mr. Moss. And the bumper height certainly is not going to add to the cost, standard bumper.

Mr. ABERSFELLER. I would not think so.

Mr. Moss. Standard gear quadrant, that is not going to add to the cost.



Mr. ABERSFELLER. General Motors, so far as I know, was the only one that did not have the standard gear quadrant. I think they have already switched. But where you have an engineering problem, you have to change dies and those costs have to be accounted for.

Mr. Moss. If they go ahead and change for a run of Government vehicles, they are going to change for all their cars.

Mr. ABERSFELLER. Yes.

Mr. Moss. They do that every year or two, anyway. So it would not be reasonable to say that this will result in more expense.

Glare reduction surfaces, that is just a type of paint in most instances.

Mr. ABERSFELLER. Generally; yes, sir.

Mr. Moss. The exhaust emission control, I believe that that is one that out my way we had considerable debate as to cost but it should not run a great deal on a production run.

Mr. ABERSFELLER. I would agree with you.

Mr. Moss. And the tire and safety rim, the safety rim has been standard on some lines of automobiles for many years.

Mr. ABERSFELLER. Yes.

Mr. Moss. Backup lights are minimal cost, a few pennies.

So we are not talking here of design features that should incorporate any appreciable added cost. The offset design engine might result in a balancing out.

Mr. ABERSFELLER. Yes, indeed.

Mr. Moss. Now these other items, I can't quite figure why you haven't, either for the production starting this fall or next, required a protective wall between the motor and the driver's compartment, so that in the event of a certain type of collision the engine is diverted down and out rather than against the driver's compartment.

I remember in former Congressman Roberts' hearings 7 or 8 years ago this was one that came out of, I believe, the Cornell experiment, one that most of us have been mindful of for so very long. Yet it is not one the list. Why not?

Mr. ABERSFELLER. It is on our list for future application. There are two reasons, the major one of which is that it is not one of the most significant identifiable causes of serious injury or fatalities.

Mr. Moss. It is an identifiable cause of serious injury, is it not?

Mr. ABERSFELLER. Yes.

Mr. Moss. All right. Why isn't it there?

Mr. ABERSFELLER. This is a question, Mr. Moss, of resources and time. We have concentrated on those areas that take 85 percent of the lives in traffic accidents. We want to perfect that and at the same time move into the additional areas and the matter of deflection of the engine, the matter of the intrusion to the back seat passenger of the trunk are high on our list.

I think we have every assurance that we will have a standard—

Mr. Moss. Was this one of the 5 or the 7 items, the 12 total, that were eliminated in the first go-around?

Mr. ABERSFELLER. I don't really know what it is without checking the file.

Mr. Moss. When a vehicle is involved in an accident, what type of form is filled out, what detail is given and what investigation is made by the Government? You are a self-insuror, are you not?

Mr. ABERSFELLER. Yes, sir.

Mr. MOSS. So you have to fill the roll of the claims agent. You go ahead and make a complete investigation, or do you?

Mr. ABERSFELLER. We make an investigation. These are the forms.

Mr. MOSS. May I ask that these forms be received for the committee files?

Mr. FRIEDEL. It is so ordered.

Mr. MOSS. Who makes the investigation? Is it a person qualified by some demonstrated knowledge or ability or is it just anybody in the area?

Mr. ABERSFELLER. It is generally someone experienced in the area of motor vehicle management.

Mr. MOSS. What area?

Mr. ABERSFELLER. This would include the individual responsible for the operation of the motor pools themselves, or one of their principal assistants.

Mr. MOSS. In other words, they are able to assess the amount of damage and the probable cost of repair?

Mr. ABERSFELLER. Yes.

Mr. MOSS. Mr. Chairman, on the second round we are not limited to 5 minutes. I am trying to expedite this. I ask permission to pursue my questions until I finish. It will not take me long but I insist on my rights.

Will you respond to my question?

Mr. ABERSFELLER. Yes.

Mr. MOSS. In other words, it is someone who can determine the cost, but is not concerned with the cause.

Mr. ABERSFELLER. Is not concerned with the——

Mr. MOSS. Cause.

Mr. ABERSFELLER. Yes; not concerned with the cause.

Mr. MOSS. Mr. Chairman, I will conclude now. But I want to make it very clear that on my second round I will insist on all my questions as a member of this committee.

Mr. FRIEDEL. Thank you very much for your fine statement.

Mr. ABERSFELLER. Yes, sir.

Mr. FRIEDEL. Our next witness will be a distinguished gentleman from the free State of Maryland, a good friend of mine, commissioner of motor vehicles, Mr. John Jewell.

Gentlemen, I would like to make a brief statement. We may be called any minute into session. If anybody here has a statement to file, you may present it to the clerk of the committee and your statement will be inserted in the record.

Mr. Commissioner, your whole statement will be included in the record. Will you try to summarize it?

#### STATEMENT OF HON. JOHN R. JEWELL, COMMISSIONER OF MOTOR VEHICLES OF MARYLAND

Mr. JEWELL. I thank you.

My name is John R. Jewell, commissioner of motor vehicles in the State of Maryland, your neighbor by the way.

I would like to thank you for extending to me the courtesy of an invitation to appear before you today to express my views on certain safety proposals now being considered by you.



As was explained to my good friend Congressman Friedel when he advised me of the committee's invitation to testify, I am mainly concerned with S. 2669, which, as you know, authorizes the Secretary of Commerce to establish minimum safety standards for motor vehicle tires.

Although fears have been expressed by the Council of State Governments and others at the prospect of Federal regulation in this area, I can assure you that we in Maryland are not so jealous of our prerogatives in the field of legislation as to risk endangering the lives of our citizens. Governor Tawes and I feel, as I am sure the members of this committee feel, that we have an overriding obligation to the citizens of our respective States and Nation to provide for their safety and protection.

It was with this in mind that we arranged for the Maryland State Police to furnish us with statistics relative to the number of accidents and fatalities that occurred in Maryland in 1965 caused by either blown or worn tires. The State Police advised me that during 1965, 476 vehicles were involved in accidents that could be attributed directly to blown-out tires and 10 of these involved fatalities. Inadequate tires were a factor in causing 1,339 vehicles to become involved in accidents of which 79 resulted in death for someone.

Now, as a result of hearings on S. 2669 and on other proposals relative to automobile safety, much discussion has centered on the relative merits of whether or not industry, the Federal Government, or State Government should be assigned the responsibility of requiring that safer features be incorporated in automobiles.

In addition to serving Maryland as commissioner of motor vehicles, I also represent the State on the Vehicle Equipment Safety Commission. Approximately 1 year ago, the VESC promulgated its first regulation, known as V-1, which established minimum safety standards and testing procedures for new tires for passenger cars and station wagons. Since Maryland was the first State in the Nation to adopt the V-1 regulation, it was my feeling that a recital of our experience with the V-1 regulation would be helpful to the committee in arriving at a decision in this matter.

As you know, the Vehicle Equipment Safety Commission came into being after the passage of the Beamer resolution in 1958 authorizing the States to enter into compacts to promote the adoption of uniform safety equipment laws and regulations. It is my understanding that 44 States and the District of Columbia are now members of the Commission. Maryland was among the last 10 to join with the legislature approving entry during the 1965 general assembly session.

In spite of its late entry, Maryland, in July of 1965, became the first State to adopt the first regulation promulgated by the Commission. We acted expeditiously for several reasons, the primary one being that Maryland had no laws establishing minimum standards for tires, the sole specification being that tires be pneumatic.

Secondly, Governor Tawes had reluctantly vetoed a tire standards bill passed by the general assembly in 1965 because he recognized the need for the adoption of a uniform tire standard throughout the States and hoped this could be accomplished through the VESC.

Because the law in Maryland confers rather broad powers upon the commissioner, it was possible to adopt the V-1 regulation without the

need for legislative approval. In passing the legislation bringing Maryland into the compact, the general assembly reserved for itself only the right of veto over the commissioner's action. Thus, rules and regulations properly adopted by me in my capacity as commissioner have the full force and effect of law, unless vetoed.

The V-1 regulation was adopted in Maryland in July of 1965 to become effective July 1, 1966. The delay of almost 1 year was granted to provide sufficient time for manufacturers to retool and for dealers and other merchants to dispose of their existing stock of tires not in conformance with the V-1 regulation. During the balance of the summer and early fall of 1965, it became apparent to us that the Rubber Manufacturers Association, an organization which I understand represents virtually all tire producers, were not entirely in accord with the new regulation. Specifically, they objected to the inclusion of the so-called cut growth test in the tire testing procedures. As I am sure most of you know, this cut growth test requires that a group of cuts one-quarter of an inch in length and one-sixteenth of an inch deep be made in the tire to be tested. The tire is then placed on a wheel and run under a specified weight for a specified period of time. The growth in the size of the cuts in the tire determine whether or not it meets the V-1 standards for this particular test.

Originally, the V-1 regulation permitted the tire cut to grow to a length  $3\frac{1}{2}$  times its original size. As previously indicated, this was objected to by the Rubber Manufacturers Association and became a subject for discussion at a meeting of vehicle equipment safety commissioners in New Orleans on October 10, 1965.

Seeking to modify the regulation, representatives of the Rubber Manufacturers Association requested that the cut be permitted to grow to a size 500 percent greater than original. Hoping to strike a compromise, the VESC commissioners did agree to and adopted a 400-percent cut growth test. Shortly thereafter, on December 9, 1965, the Wall Street Journal published an article regarding the adoption by the Rubber Manufacturers Association of more stringent requirements for the testing of new automobile tires.

Hopeful that the revised RMA standards meant compliance with the revised V-1 regulation, my executive assistant, Mr. Ejner Johnson, wrote a letter requesting a copy of the new standards. A copy of these standards was sent to Mr. Johnson by Mr. Ross R. Ormsby, president of the Rubber Manufacturers Association, along with a letter explaining that the industry felt the cut growth test invalid and urging Maryland to delete the test from its standards.

As the law is written in Maryland, it is my obligation to demonstrate that the adoption of a VESC rule or regulation would run counter to the public's interest to justify a refusal to act or a modification in a VESC rule. Therefore, I felt that the RMA would have to provide to such agencies as the General Services Administration, the Bureau of Standards, and the Vehicle Equipment Safety Commission that the cut growth test did not serve the public interest and convince the VESC to drop the cut growth test before I could possibly comply with Mr. Ormsby's request.

I should add at this point that on several occasions following the adoption of the V-1 regulation in Maryland, representatives of the RMA were advised that Maryland would not amend the V-1 regula-



tion regarding the cut growth test unless such amendment was sanctioned by the Vehicle Equipment Safety Commission.

In our continuing efforts to secure compliance with the V-1 regulation in Maryland, Mr. Johnson met with representatives of the Rubber Manufacturers Association and the Baltimore Tire Dealers' Association in our departmental offices at Glen Burnie, Md., on January 17, 1965. As a result of that meeting, at which the Baltimore Tire Dealers' Association went on record in favor of the V-1 regulation, a letter dated January 21, 1966, was sent to the president of the Rubber Manufacturers Association, again rejecting the RMA proposal to eliminate the cut growth test for the reasons previously cited.

In that letter Mr. Johnson said, and I quote:

Maryland probably would be strongly guided by the recommendations of the Automotive Division of the General Services Administration regarding the validity of the cut growth test.

The letter concluded by noting that, and again I quote:

Failure of the RMA to modify its new standards would certainly give impetus to the drive for Federal regulation in this area, and while the State of Maryland has taken no position regarding Federal regulation, the industry's position is well known and documented.

Regarding the former quote, I direct the committee's attention to the Interim Federal Specifications for tires recently published by the Federal Supply Service of the General Services Administration, which on page 4 specifies that the growth of cuts during the indoor endurance test of tires shall not exceed 400 percent. This Federal cut growth test, of course, coincides with that required by the V-1 regulation now in effect in Maryland.

In an interview in the Baltimore Evening Sun on April 27, 1966, Mr. Aubrey M. Crismond, GSA standardization and commodities specialist, described the cut growth test as, and I quote, a "must." He also disputed industry's contention that compounding a tire to meet the cut growth test would result in a poor traction product that wears out faster. Mr. Crismond said GSA tests quote "haven't found that to be so at all."

I direct the committee's attention also to a letter from Mr. J. Herbert Hollomon, Assistant Secretary of Commerce, included in the Senate Commerce Committee's report that accompanied S. 2669. About the cut growth test, the National Bureau of Standards, Mr. Hollomon said, reported that:

RMA does not consider this test important; however, the requirement is considered useful in eliminating tires that tend to lose their treads or portions of them.

As I mentioned at the outset of my testimony, we in Maryland are not primarily interested in whether tire standards are imposed by the Federal Government, State government, or industry itself. Our major concern is the establishment of meaningful standards that offer a strong measure of safety to the citizens of this Nation. Nevertheless, there have been some conflicting developments that are disturbing.

On June 7, 1965, Mr. Ormsby, appearing before the Senate Commerce Committee on Federal legislation requiring tires to comply with certain safety and labeling regulations, said:

If it is proved necessary that legislation is needed to enforce these (tire) standards, Congress has already provided the means. The Beamer Resolution

of 1958 authorized the establishment of the Vehicle Equipment Safety Commission. The Commission's initial work has been in the tire field. Before enacting tire legislation of its own, the Congress should allow the Vehicle Equipment Safety Commission to carry out its charter.

Testifying on that same piece of legislation, Harry F. Barr, a vice president of the General Motors Corp., appeared with representatives of other manufacturers, saying:

It is our view that the standards program of the VESC, taken in conjunction with the standards of the other groups which we have described, represents a sound approach to the objectives with which you are concerned in S. 1643.

Despite this rather strong endorsement of the VESC approach to establishing tire standards, only one small tire manufacturer has thus far agreed to produce a tire that either meets or exceeds the V-1 regulation. One other company has indicated it will comply, but has not yet notified the Department formally.

New Jersey, which also has adopted the V-1 regulation effective July 1 of this year, is encountering similar reluctance on the part of manufacturers, despite the recent reports of both the General Services Administration and the Bureau of Standards attesting to the validity of the 400-percent cut growth test.

The Rubber Manufacturers Association offers two principal reasons for its continued reluctance to comply with V-1. First, it contends that Federal tire regulation is a foregone conclusion and, therefore, it would be foolish to comply with the V-1 regulation until Federal standards are determined. Such an argument sounds logical until one realizes that the original version of S. 2669 required the Secretary of Commerce to establish the V-1 regulation as interim standards until final Federal standards could be promulgated by the Secretary 2 years after the effective date of the act.

Thus, S. 2669, in its original form, would have imposed, as an interim standard, the very V-1 tire standard with which tire manufacturers are now reluctant to conform. It should also be pointed out that there is widespread speculation that the Magnuson bill, even as amended, will not be enacted but be included in an omnibus standards bill which may or may not become law.

Secondly, the RMA contends that to abide by the V-1 regulation may require the industry to comply with 50 different sets of standards. Such statements directly contradict earlier statements of industry representatives in support of the vehicle equipment safety compact as a means of promoting uniform regulation of equipment throughout the Nation.

Our experience in Maryland has led us to the unfortunate conclusion that perhaps the industry supported the VESC procedures rather than Federal legislation simply because it felt that industry was in a better position to influence standards established by the Vehicle Equipment Safety Commission than those of the Secretary of Commerce. In Maryland and New Jersey, at least this fortunately has not been the case.

Nevertheless, the problem before us remains the establishment and enforcement of effective tire standards. I can assure you that when V-1 becomes effective in Maryland on July 1, we will exert every effort under the law to eliminate from the marketplace those tires that do not meet or exceed the minimum standards.



In addition, we currently are engaged in a campaign in Maryland to establish strong consumer resistance to substandard tires, and I am frank to say that my testimony here today is a part of that campaign. Nevertheless, we could use your assistance, and it is my hope that the committee, with a clearer insight into this problem as it affects the States and the Vehicle Equipment Safety Commission, will use its authority and influence to convince the tire industry to conform to federally sanctioned standards established by procedures which the industry itself espoused in testimony before committees of the Congress.

Gentlemen, I appreciate your giving me the opportunity to appear before you today to present my views on this subject.

Thank you.

Mr. FRIEDEL. Mr. Jewell, I want to thank you for bringing this factor to our attention. I did not know there was such resistance from the tire industry to meet the minimum standards. I want to compliment you on the work you are doing.

Mr. MOSS.

Mr. JEWELL. Thank you, sir.

Mr. MOSS. Mr. Jewell, I want also to compliment you. I hope your campaign to alert the people of Maryland to the dangers of substandard tires is a very successful one. Perhaps what the industry wants is to have the Congress enact some of the standards that can be effective as a substitute for the more orderly method that you have offered.

Now, is the V-1 standard just to the matter of compounding of the tread rubber? I assume that is what is involved in the cut growth test.

Mr. JEWELL. The V-1 standard goes into the requirements in the manufacture of the tire related to not only the cut growth but the various other tests that are necessary in order to produce a safe tire. The basic purpose of the V-1 standard is to produce a tire that will wear out before it blows out. The casing that you have in hand there is a very questionable type.

Mr. MOSS. Does it sanction this very fragile sidewall construction in this two-ply tire?

Mr. JEWELL. Mr. MOSS, I am not a tire engineer, but I would question very much whether that tire would meet this V-1 standard. I would doubt very much that it does, sir.

Mr. MOSS. I want to join the chairman in expressing my appreciation for your appearance. I hope that you really enforce that standard when it becomes effective in your State and let the chips fall where they may.

Mr. JEWELL. I will assure you, sir, that the department of motor vehicles in the State of Maryland will exert every effort in that direction. We feel that through the cooperation of some small segments of the industry that we will accomplish that purpose.

Mr. MOSS. I will say this, the attitude, as demonstrated in this chronology you have given the committee, of the industry toward this Vehicle Equipment Safety Commission, raises grave doubts as to the wisdom of this committee associating in any manner with the agency which will ultimately have a major role in formulating standards for motor vehicles.

Mr. JEWELL. Mr. Moss, in that regard, let me refer to my statement. I am not here for the purpose of appraising the VESC. We are using it in Maryland for the value that we feel it has. However, I think it is significant to note that the VESC has now become operative and that it has promulgated a rule and regulation, and by virtue of the rule and regulation that it has promulgated, and the fact that the industry has strongly resisted this and says at this moment, insofar as I know, that they are not complying, at least they have not advised us so, that the VSEC in this instance certainly is not a tool of the tire industry.

Mr. Moss. I want to make it very clear that that was not the intended implication, but the ability of such a Commission to bring about compliance with its standards is a very significant matter which must be taken cognizance of by the Congress. Now you have indicated since the standard was promulgated, two States have concurred, Maryland and New Jersey, but they have met total resistance or almost total resistance by the industry.

I think it demonstrates, perhaps, the need for much greater strengthening of the Federal role. If that is what the industry wants, if they want to be contemptuous of the authority of the States, then I think they are going to force the Congress to take appropriate legislative steps to insure that their contempt will not continue.

Mr. FRIEDEL. Thank you, Mr. Moss.

Mr. Younger?

Mr. YOUNGER. Thank you very much, Mr. Chairman.

Is this V-1 regulation normally what you call a four-ply tire?

Mr. JEWELL. No, sir. I have the standards that are set forth in this that I will be glad to leave with the committee as a matter of record.

Mr. YOUNGER. I think it would be well to submit it for the file for our reference.

Mr. JEWELL. I will do that, sir.

Mr. YOUNGER. That is all, Mr. Chairman.

Mr. FRIEDEL. Thank you.

Mr. Satterfield?

Mr. SATTERFIELD. No questions, Mr. Chairman.

Mr. FRIEDEL. Mr. Jewell, I want to thank you very much.

Mr. JEWELL. Thank you, Mr. Chairman and gentlemen of the committee.

ANALYSIS AND STATEMENT OF JOHN R. JEWELL, MARYLAND COMMISSIONER OF  
MOTOR VEHICLES

H.R. 12632

It appropriates \$5,000,000 from which the Secretary of Commerce shall make grants to the various states of up to 90 percent to assist them in carrying out programs for the design and testing of safer passenger automobiles. To my knowledge, the only state that has thus far built a prototype safety vehicle has been New York and to promote the duplication of this feat in other states may simply be a waste of federal funds. If the Congress is to consider such a program as this then it may be advisable to also consider a direct appropriation to the Vehicle Equipment Safety Commission to design and test safer passenger automobiles. This Commission which is composed of 44 states and the District of Columbia could enable the states to better coordinate their testing procedures and eliminate duplicate efforts.



H.R. 12709, H.R. 12905, H.R. 12593, H.R. 12548

All of these bills are identical and would establish a national traffic safety agency and center to promote a uniform traffic safety environment. These proposals also call for the establishment of national traffic safety standards and further provides for the certification for motor vehicles. The bills further provide for grants of up to 30 percent to the various states. The only unfortunate aspect about this legislation from the State's standpoint is that it would require the establishment or designation of a central agency to administer the State's overall traffic safety program. Since, in most states, this program is fragmented, it would seem that a more practical approach would be to place the responsibility for administering the states safety program in a Council composed of the Commissioner of Motor Vehicles, Chairman of the State Roads Commission and the Superintendent of the State Police or counterparts. There is sentiment for this type of legislation and at the 1966 session of the Maryland General Assembly recently, legislation was introduced that would require the certification that motor vehicles meet certain standards established by the Department of Motor Vehicles before being permitted to operate on Maryland highways.

H.R. 13228

This bill is similar in most respects to the four bills discussed in the preceding paragraph and its purpose is to provide for a coordinated national safety program and the establishment of safety standards for motor vehicles in Interstate Commerce.

H.R. 688, H.R. 9478, H.R. 7784, H.R. 7494, H.R. 12989, H.R. 11891

Essentially, the above listed bills provide for the establishment of minimum safety standards for tires sold or shipped in Interstate Commerce for use on motor vehicles. Since Maryland was the first state to adopt the "V-1" regulation promulgated by the Vehicle Equipment Safety Commission establishing minimum performance standards for new tires for 'Class A' vehicles, naturally, we are interested in the adoption of similar or more strict standards throughout the nation. Whether this is done by the adoption of "V-1" by other member states or through uniform federal legislation is not the major point of issue, the important fact is to protect the public welfare by acting with dispatch in this matter.

H.R. 570

This legislation would require automobile manufacturers to issue certificates of fitness for every automobile manufactured for sale by them for use on the public highways. No recommendation.

H.R. 12991, H.R. 9514

Both bills would provide for the research, design, development and construction of fully operational prototype passenger motor vehicles in embodying up to date safety features. This proposal is similar to action taken by the state of New York in the development of a prototype vehicle and could do much in developing safer cars for travel on today's highways. It would also seem appropriate that this project be undertaken by the federal government rather than by various state governments to avoid duplication of effort and unnecessary expenditure of either state or federal funds.

H.R. 9479, H.R. 9303, H.R. 9153, H.R. 8724, H.R. 12393, H.R. 12990

The above bills would authorize the Secretary of Commerce to prescribe certain safety features that would be incorporated in all passenger motor vehicles sold in the United States. It is the opinion of the Department that such legislation would not only be in the public interest but would also promote the uniform adoption of safety features by automobile manufacturers. However, enactment of such legislation would, no doubt, render the Vehicle Equipment Safety Compact obsolete and it would be wise for the Committee to contact the office of the Vehicle Equipment Safety Commission in Washington for comment.

This is similar to the above listed bills empowering the Secretary of Commerce to prescribe safety devices for use on motor vehicles. It was designed to provide the public with the safest automobiles possible without increasing costs. Enactment of this bill would also be in the public interest and would promote the uniform adoption of safety devices by automobile manufacturers. Again, however, enactment of such legislation would, no doubt, render the Vehicle Equipment Safety Compact obsolete and it would be wise for the Committee to contact the office of the Vehicle Equipment Safety Commission in Washington for comment.

Mr. FRIEDEL. Our next witness is Dr. Carl Clark, Baltimore, Md.

**STATEMENT OF DR. CARL CLARK, BALTIMORE, MD.**

Dr. CLARK. Mr. Friedel and gentlemen, my name is Carl Clark. I am a research scientist in crash injury protection work in Baltimore. I am speaking as an individual. May I stress this point.

For the past 10 years I have been involved in research on the effect of acceleration on man, including studies of means to alleviate these effects by protective restraint systems.

Earlier today we had some call for an upper body restraint. I am going to be talking to you about some research possibilities for this type of support.

From 1956 to 1961 I was head of the Biophysics Division of the Navy Human Centrifuge Laboratory in Johnsville, Pa. From 1961 to the present, I have been in private industry, continuing research on acceleration effects. For the past 2 years I have been head of a research project supported by a contract from the National Aeronautics and Space Administration on the possible uses of airbag restraint systems in spacecraft and aircraft, with a consideration and analysis at the end of the contract period of the possible uses of airbag restraints in other modes of transportation, including the automobile and highspeed trains.

I would like to show you films of this work. My direct testimony will be excerpts to you from reports on this work although I will not take the time to go through this entire direct testimony. I will mainly describe the film.

This work, I will emphasize, was supported by the National Aeronautics and Space Administration and is an example of studies that initially began with application to space but now are recognized to have applications on the ground as well.

(Film presentation.)

Dr. CLARK. This work begins with an analysis of the possibilities of supporting people not in rigid restraint systems, but in elastic restraint systems, in bags which surround the person. These experimental studies begin in a very simple way. This does not look a bit like an automobile, yet the measurements we make from experiments of this sort show the possibility of supporting the human by an inflating bag that surrounds him in the impact and allows him to go through an accident or impact without injury. This possibility of crashing without injury is the key point of this presentation.



The space work under NASA contract then looked at a larger system simulating a spacecraft. You will notice in these impacts there is some rebound. This is a transparent upper body support that would support an astronaut, for example. This rebound is at such a low frequency that it is quite acceptable to leave the restraint inflated in case the spacecraft has a multiple-impact situation.

We looked at this initially with dummies, and then went on to work with humans. These loads that you are seeing here involve loads on the vehicle of 70 to 100 g. Because the man can move in a controlled way with respect to the vehicle, the loads on the man are nearer 20 g.

The impacts that we studied in this series went on to the velocities of landing of spacecraft; that is, of the order of 30 feet per second. This is still a fairly low velocity. It is 22 miles an hour approximately, and yet because we are landing extremely abruptly here, this is quite a severe type of impact. Yet you can see that in this condition—here is a 10-foot drop, for example, in these conditions, although the loads on the vehicle are very severe, because of the controlled displacement of the man with respect to the vehicle, the loads on the man are reduced and the man is uninjured.

That was a 16-foot drop, again about 65 g. on the vehicle and about 20 g. on the man. This type of restraint system can be used for oblique crashes. This is a 16-foot drop at 45° tilt of the vehicle.

These, then, represent the accident situations. What we are saying is that with adequate body protection, one can go through very severe accidents and essentially be uninjured—20 g. for a well-supported man is perfectly tolerable.

We were then encouraged by the Space Administration to look at the airplane protective problem. This is a moderate crash with a lap belt and the belt all too often breaks. If one had an inflated bag that would expand in front of the passenger just prior to the impact, major protection would be provided. Notice the controlled displacement of the support of the upper body so that there is not this impact into the rigid surrounding structures.

This is an intentional crash of an airplane at 160 miles an hour. It bounced over two hills and went into the following valley. This is a very severe accident. Yet a well protected passenger in this aircraft could have survived this crash uninjured. This is so because it is possible to isolate from some of the loads of this crash and to support the body in such a way that his injury is prevented. This is a survivable crash. By this we mean the cabin of the airplane is not totally destroyed. Anybody that is in still an intact part of the cabin should survive this crash uninjured.

Watch the white dummy. He goes straight down in the present type of seats; they break and there is major injury. This dummy will break the seat in front of him with his head just as you can do in the back seat of an automobile. We need upper body support in severe accidents.

In the backward facing seat, an excellent design if the seat back holds, if the crash is more severe and the seat back fails, this can be exceedingly inadequate. The need then is to provide a broad support

that will be put out just before the crash to provide load isolation for the passengers.

These dummies were right across the aisle from the airbag-supported dummy. You can in a moment see the difference in response. They are swept to the floor by these loads in the crashing airplane. This, I think you will agree, is a very severe accident.

This now is the airbag-supported dummy. In the first hill he moves down into the bag and back into the seat. Because he is surrounded by yielding material, the loads on the dummy in the entire crash are probably under 10 g.

May I stress that this experiment was run for the FAA by the Flight Safety Foundation, and we, as a NASA contractor, were on board the experiment as one of many parts of the total experiment.

Although the system is partly loosened up because the seat in front broke forward and there were no protective bags in the front seat, the dummy is still surrounded by the yielding material, so is not injured by this severe accident.

The plan then flies over that second hill and comes to rest in the valley and rolls over onto its left side. Even in this third type of situation the dummy simply hit the yielding material and has the protection.

So this accident at 160 miles an hour does not necessarily lead to injury.

The second collision can be one in which there is protection provided. There is the plane coming to rest and the dummy, I think you would agree, would be essentially uninjured.

We were concerned, however, about the severe downloads. So my coworker, Carl Blechschmidt, is making a run with our inflated seat structure. We are interested in surrounding the person in all directions with controlled, yielding material. This is a slow-motion film, of course.

The design then is to build an air seat, an inflated seat structure that will also deform, that will have the reliability of a well-designed automobile tire, could be inflated for its lifespan or perhaps only occasionally checked, yet it would look and feel like a regular seat under 1 g. conditions. Under severe impact conditions, it would deform in a controllable way.

This is about 67 g. on the structure. It is about 7 g. on the man's chest. Because of the deformation of the system, the head support is not absolutely required. There is a controlled yielding. Likewise, in the vertical load situation the seat deforms so that instead of breaking through the metal seat, there is some load isolation provided for the dummy.

We have the possibility in these air seats of deflating the seat after a severe crash as well as deflating the airbags. In the airplane application, this would open up the entire passenger compartment as an escape corridor in case of a need for rapid escape in fires.

This is a C-45 hitting at 100 miles an hour. It will stop in twice its length. This also was staged by the Flight Safety Foundation for the Army. We had an air seat and airbags in this airplane. Unfortunately, there was a regular seat in back of our experiment with



two dummies on it. These dummies did have chest airbags but the regular seat tore loose from the airplane. You can see the two front dummies on the air seat and the two in back. In this crash they go forward, but they come back. Now the regular seat is torn loose. It is up above our air seat, yet if this had been both seats with the regular design, they would have been up in the front of the airplane.

There was a chance for survival in this very severe crash situation with its controlled deformation seat design. All of us working in the safety area have recognized that many more people are killed on the highways than are killed in airplane and space transportation situations. Therefore, we try to apply this work to the automobile situation.

You are going to see here a series of catapult track tests by the FAA, again in cooperation with the Space Administration and our contract. You can see in the middle there an air seat with the chest airbag and this first crash is a velocity change of 68 miles an hour. The stopping distance is not as short as a barrier crash. This is more like a car-to-car or perhaps a little less than a car-to-car type of collision. You can see the controlled deformation of the bags so that the load is distributed and there is some isolation provided.

The hat is flying off the dummy, but in general this is a perfectly tolerable load condition and the upper body support is provided.

Now, in the automobile accident situation, of course, you do not want these bags inflated at all times, so we are looking into designs that will allow the very rapid inflation of the bags just before the impact situation. I will go on with that discussion in a moment.

This next crash is a velocity change of 84 miles an hour. The regular seat in back breaks. This causes the seat belt to break. This causes the airbag to break and the back seat dummy is thrown out of the back seat, the regular seat. The dummy in the air seat is perfectly protected and would go through this crash at 84 miles an hour velocity change without injury.

We, therefore, have the possibility of looking at the support provided by these airbags in automobiles. The University of California Institute of Transportation and Traffic Engineering, in a project directed by Mr. Derwyn Severy, is now carrying out a series of schoolbus crash experiments. We were allowed to put the airbags into one of the cars and the schoolbus. For the airline situation we are looking at bags that would inflate over a matter of seconds, perhaps for every takeoff and landing. In the automobile, they must inflate much faster.

The pressure in these bags needs to be only a few inches of water (or one-third of a pound per square inch) so there is no respiratory problem. A child can have his face pressed in this bag and he can breathe around the corners. We are looking at several designs that will involve automatic rollup of the bags so that in the automobile situation, for example, if the bags inflated around the passenger and then the driver avoided the crash, he would simply throw a switch and the bag would roll up by itself. This would provide protection if the protection is needed.

In the automobile situation, we would like to use the techniques we are using in the space field of automatically sensing malfunctions in the vehicle or the performance. For example, we find a significant percent of the automobile accidents are single-car accidents where the car goes off the road. With modern techniques, this can very easily be sensed in the wheel. When the wheel leaves the road, we would inflate bags around the passengers.

We would not do this around the driver initially, hoping that the driver might be able to steer back onto the road. If there is an abrupt braking, as in panic braking, we would automatically inflate bags around the wife and children. If there are skids developing or other emergency turn situations, these can all be sensed in the way the automobile is driving and used to automatically trigger these bags, not explosively, but at a slower rate.

These films show some of our automobile measurements, of abrupt braking, and turns. This last turn was so abrupt that it popped the hubcap off the car. These conditions can be sensed, and the airbags automatically inflated around the passengers if there is a possibility of a crash. If the crash occurs, after it is over the airbags are automatically deflated.

This now is the experiment at the University of California less than 2 weeks ago. The right front passenger has an inflated air bag and this car is going to run into the back of a schoolbus at 60 miles an hour.

We do not have all the results of this experiment but it does look as if the air bags remained inflated through perhaps the most critical parts of this crash. The bag was deflated, apparently when parts of the hood were pushed back and broke the windshield and came into the passenger compartment, and punctured the airbag.

This is a marginally survival accident. Here we go, the car hits the bus at 60 miles an hour. The hood is crinkled back into the passenger compartment. The driver is wrapped around the broken steering wheel. You see the passenger sitting back.

This is the schoolbus and we are quite interested in Mr. Cunningham's measure for seat belts in schoolbuses. We did have an air seat in this experiment. Again, this is by the Institute of Transportation and Traffic Engineering at the University of California.

You see again the dummy on the right front who had the protection through the most critical period of the crash by this air bag.

We think then that we have demonstrated the possibilities of air bag protective systems in providing this upper body support. We see that this protection requires the bags to be inflated and our planned experimental work now and our thoughts are directed toward ways in which we can automatically sense these malfunctions of driving performance that are developing in automobiles and hopefully provide this protective system without the passengers doing anything about it.

We have used the techniques that we use in the space business in our plan for automatically deflating these bags after the crash. Again, may I stress that in the airplane situation we suggest deflat-



ing not only the bags but also the seats so that the entire cabin of the airplane becomes the escape corridor.

If I might take an instant to point to what is in this direct testimony without really reading through it—

Mr. FRIEDEL. Just a moment, Dr. Clark. I want to commend you for your very fine research you have done in this field.

of transportation showing how overridingly important the automo-  
Off the record.

(Discussion off the record.)

Dr. CLARK. We are very concerned in the space approach to any problem, the aerospace approach, with what we call the cost effectiveness study, the trade-off of the cost of doing new things versus the benefit of doing these things.

So, we are proposing an advanced restraint concept. I want to stress that the concept of air bag restraint it turns out was not original with me, although I thought it was when I began the work. It turns out Jordanoff in 1952 had this idea, Hetrick had it, Benrud, Bertrand and Lipkin had it. We seem to have done the most extensive set of experiments.

In looking at these things, the possibilities of these new ideas, we need to examine what we can do if these things are effective, as effective as we seem to feel from the initial research.

So, in the testimony that I am handling you I have extracted pieces of our reports to the Space Administration on elements of this system. This begins with table 1 on page 2 on the total means of transportation showing how overridingly important the automobile is in the way we get about.

You may care to later read some of the subscripts. The spacecraft safety in comparison to the automobile safety, for example, is noted here. No one has been killed in a space situation but we are designing the spacecraft to be more than 100 times as safe per mile of travel.

Mr. FRIEDEL. The testimony you have will be in the files of the committee.

Dr. CLARK. Very good.

Mr. FRIEDEL. There might be some questions.

Mr. Moss, do you have any questions?

Mr. Moss. Dr. Clark, I believe that I noted in the pictures that you took part in some of these experiments as the subject being subjected to the impact. You are convinced as a result not only of involvement in the development of these experiments and the concepts upon which they are based but as an active what? Experimental animal?

Dr. CLARK. One learns most by participating in these things.

Mr. Moss. You can survive many of the crashes?

Dr. CLARK. Yes.

Mr. Moss. There has been extensive experimenting in air safety, has there not?

Dr. CLARK. Yes. A great deal of the support of the Government research on safety has been in the aviation safety area.

Mr. Moss. How closely has this been followed by the automotive industry?

Dr. Clark. I think the safety engineers in the automotive industry are familiar with this but I really am not in a position to speak in regard to the details of their information.

Mr. Moss. Without putting you on the spot, you have not been overwhelmed by the interest shown in this type of research, is that correct?

Dr. Clark. I think that is correct, yes.

Mr. Moss. Thank you.

Mr. Friedel. Mr. Younger?

Mr. Younger. I have no questions, Mr. Chairman.

Mr. Friedel. Mr. Satterfield?

Mr. Satterfield. No questions, Mr. Chairman.

Mr. Friedel. Mr. Farnsley?

Mr. Farnsley. No questions. Just lots of luck.

Dr. Clark. I wonder if I might emphasize table 5 on page 7 in regard to the discussion on statistics? We do not, indeed, have very good statistics but many of the numbers that are proposed are not completely reliable numbers. I am simply indicating in this table, as others have indicated that the true numbers may be quite a bit higher than those we now think. Instead of the \$9 billion direct cost of accidents, perhaps a better cost is a least \$12 billion.

What we learn from the cost effectiveness approach is that if we could spend some money on research and find a new solution we might actually spend less money on this increased research and application for safety and residual accidents than we are now spending on accidents alone.

And yet we would save perhaps 25,000 people a year from being killed, and 2½ million people a year from being injured. With an improved restraint and vehicle interior surroundings, we could indeed survive the "survivable" crashes—and about half the now fatal crashes are "survivable"; that is, do not result in destruction of the passenger compartment. And we could emerge uninjured from what I call the "needless pain" crashes—and at least half of the present crashes with injury are of "needless pain"; that is, they involve passenger compartment accelerations which alone would not cause injury or pain. Thank you very much.

Mr. Friedel. Mr. Ira G. Ross, president, Cornell Aeronautical Laboratory, of Cornell University, Buffalo, N.Y.

**STATEMENT OF IRA G. ROSS, PRESIDENT, CORNELL AERONAUTICAL LABORATORY, INC., CORNELL UNIVERSITY, BUFFALO, N.Y.; ACCOMPANIED BY ROBERT A. WOLF, HEAD OF TRANSPORTATION RESEARCH DEPARTMENT**

Mr. Ross. I have with me Mr. Wolf who is head of the transportation research department of the laboratory. We have, of course, submitted prepared testimony in detail. I should prefer in the interest of your time, if I may, simply to stress one salient point which I would like to emphasize.



Mr. FRIEDEL. Your entire statement will be placed in the record.  
(Statement referred to follows:)

STATEMENT OF IRA G. ROSS, PRESIDENT, CORNELL AERONAUTICAL  
LABORATORY, INC.

THE RESEARCH PROCESS IN TRAFFIC SAFETY

For nearly 15 years, Cornell's Automotive Crash Injury Research project—now a part of the broader program of Cornell Aeronautical Laboratory<sup>1</sup>—has conducted field research in some 30 states in an attempt to uncover the leading causes of injury resulting from automobile accidents. To our knowledge, this research represents the most comprehensive and longest sustained program of accident data gathering in the country. Our practical experience in the research process involved with highway accident investigations—from data collection to completed analysis—is, we believe, unparalleled. Our staff in this field has over 100 man years of experience. In addition to our research in injury causation, the Laboratory has contributed to research in such fields as vehicle stability and control, crash protection and restraint techniques, highway barrier design, traffic control and future highway systems concepts. It is from this unique background that we testify before this Committee today.

As signified by many of the Bills before this Committee, intensified research into the causes of traffic accidents, deaths and injuries is urgently required. Traffic safety is a complex problem involving interactions among the vehicle, the driver and the highway environment. Seeking the truth about the effects of any one of these variables will require a large amount of data, a rigorous process of analysis and, in many cases, considerable experimentation. A truly comprehensive volume of data will be critical to success in order to investigate the myriad factors which influence accidents as well as to safeguard against the false conclusions which can be drawn by examining only a few accident cases. We have found that our own Automotive Crash Injury Research project, for all its breadth, often wants for data. And, as we all recognize, this study into the causes of injury resulting from auto crashes is but a scratch upon the surface of the overall traffic safety problem. The nation will well benefit from large scale research to uncover data and enable effective analysis of this many faceted problem. Federal leadership in attacking this public problem is most logical and should draw upon the resources of both the public and the private sector.

In relation to the establishment of vehicle standards as proposed by several of the Bills before this Committee, research should prove highly productive. Whereas valid standards are highly desirable, our Laboratory asserts that there is not today a sufficient knowledge of the complex interrelationships among driver, vehicle and highway to warrant broad conclusions and specifications for vehicle performance standards as well as of operating regulations or of driver training methods. Until research has brought forth better understanding, any regulation in these fields should be most carefully delimited to the relatively small areas of established fact as is generally the case with the GSA standards. Premature freezing of performance standards beyond these limits may well inhibit innovation and impede evolution toward configurations and characteristics which, while presently unconceived, might ultimately bring optimum interrelation among driver, vehicle, highway and traffic control.

The need for research in traffic safety are manifold. Without attempting to catalog them all, let us point to some six requirements (Appendix A) which immediately stand out in our minds:

1. A body of theory in crash mechanics as a basis for the rational design of automobile structures to minimize crash forces;
2. Specification of handling characteristics for automobiles for providing the average driver the maximum efficiency and safety;

<sup>1</sup> Cornell Aeronautical Laboratory, Inc., is a nonprofit, independent research laboratory, wholly owned by Cornell University, primarily devoted to applied research in aeronautics, astronautics, electronics and associated sciences. In addition, a major program in transportation research, including highway safety, has evolved over the years.

3. Operational theory of the highway system in order to understand and, hence, control the interrelationship among highway design, driver behavior and traffic flow;

4. The enhancement of driver skills involving basic research and training techniques, incentives for improving driver skills and measures of effectiveness;

5. Evaluation of accident countermeasures wherein data of actual accidents can be collected in an amount and comprehensiveness to permit inspection and evaluation of the results of counter-measures (for example, vehicle standards) which have been put into effect to curb or minimize accidents;

And last—but hardly least—

6. A fundamental understanding of what causes accidents. I am happy to report that we have begun a prototype program in this area of accident causation under recent sponsorship of the Automobile Manufacturers Association. Ultimately, however, a broader based effort will be needed.

Research into these and other problems is indeed in the public interest. However, based on our experiences let us point to one important consideration—an often misunderstood one—which must be recognized to insure that much of this research achieves maximum effectiveness to the public's benefit. Many of the problem areas in traffic safety, as with research into the causes of accidents, will depend for solution upon case studies of actual accidents, including interviews with participants. In such instances, case studies are the raw ingredients of the research process and solution of the problem will be only as effective as these data allow. To insure that the most complete and accurate data concerning specific accidents be volunteered to the researcher, our experience indicates that such information must be confidential to the research program and immune to use in any action for damages or criminal prosecution. Findings based on scientific analysis of the general body of data should, of course, be publicly available. But individual case histories of accidents must be exclusively employed as inputs to their research process. Without such safeguards, effective data sources will dry up.

A clear distinction must be made between information gathered for a research program aimed at the public good and data to be employed by individuals in civil or criminal actions. Though both such ends are justifiable in themselves, to mix them will destroy research effectiveness and impede solution to the pressing public problem of traffic safety.

Our experience with the Automotive Crash Injury Research project, wherein accident and medical reports are volunteered by police, physicians and health officials throughout dozens of states, has clearly shown the need for keeping such case histories confidential. Our cases include medical information on injured parties sent by the attending physician. Since this is done without a patient waiver, we must guard against any infringement of the confidential nature of the doctor-patient relationship. Cooperation of physicians is dependent upon very specific assurances:

1. That the overriding purpose of the data is ACIR usage for research of crash injuries;
2. That the raw data will not be used for nonresearch purposes;
3. The identities of parties in cases will be rigidly protected.

Indeed, in at least two instances, cooperation in the Cornell program was contingent on passage of state laws prohibiting disclosure of such data and rigidly confining its use to research purposes. In like manner, police cooperation depends on confidence that ACIR data will not be misused. The ACIR data-collection system and, hence, the project would promptly disintegrate if such data protection were stripped away.

As a scientific research institution, we further believe indiscriminate public disclosure of individual accident reports could lead to public disservice through misinterpretation and misuse. Individual case histories, taken out of context of an overall pattern, can "prove" anything from the dangers of seat belts to the desirability of high-speed collisions.

In the case of sustaining financial sponsors of the ACIR project, the Public Health Service and the Automobile Manufacturers Association, our policy is to provide copies of the anonymous portions of case histories. The auto manufacturers have taken advantage of this policy with the written proviso that such information will be employed exclusively in their own research programs



and not publicly released. The individual manufacturer receives only those cases concerning his own models. The PHS, however, has not availed itself of such information, in keeping with its general practice of not collecting raw data from organizations to which it provides "research grants." However, both PHS and AMA receive all reports of our research results. All completed studies also are made publicly available and have been widely distributed. (A list of these reports is contained in Appendix B.)

In the light of our experiences in collecting accident data regarding injury, we believe that any investigation into the causes of accidents likewise will depend for its effectiveness on information which is to remain confidential. To objectively determine the true causes of accidents, complete and factual responses from participants in the accident must be volunteered to the researcher. In accidents involving driver error, for example, we believe such responses would be virtually precluded if the statements were to be available for use in criminal or civil actions. Yet it is just such complete and accurate data on the causes underlying accidents—be it driver, vehicle, highway environment or their combination—which are needed to attack this public problem. We are convinced that data collected for such research purposes must be separately obtained and inviolate from other approaches to accident investigation.

It is encouraging to note that the proposed Section 307 of the Traffic Safety Act of 1966 contains provisions for just such protection of research data. We would urge that other bills for enhancing research in traffic safety contain similar provisions. Such steps will lead to more effective research for the public good.

The value of research in highway safety, though lacking in proper magnitude, is attested to by the experiences of Cornell and other research institutions. Of Cornell's many programs, the best known is the Automotive Crash Injury Research project. A quick review of some of its findings would seem appropriate.

In 1955 ACIR ranked the leading causes of automobile injuries and that ranking essentially has remained the same to date. As seen in the attached table, this investigation pointed to steering assembly, instrument panel, ejection, windshield and door structures as the leading causes of injury as a function of injury severity. However, in another ranking adjusted to emphasize fatalities, ejection emerged as the leading cause.

Another early ACIR study revealed that in rural injury-producing accidents, nearly one-half the cars had one or more front doors opened during the accident. An additional investigation indicated that occupant ejection associated with door opening doubled the risk of serious fatal injuries. After the introduction of interlocking safety door latches in 1955 and 1956, a further ACIR project showed that door opening had been reduced by about one-third, occupant ejection by about 40 percent, and fatal injuries by about 12 percent. In that project, some significant differences between products of major manufacturers were also observed. A more recent study showed that door openings had been reduced by 20 percent in the automobile industry as a whole, and that differences between various manufacturers were small. An unusual type of damage to door hinges on General Motors cars was also observed and showed that the frequency of hinge damage on these cars was higher than for other manufacturers.

The use and effectiveness of seat belts has been studied in a number of ACIR papers. It was found that installation of seat belts increased from virtually none in the 1950's to nearly all of the current models, whereas seat belt use has remained at approximately one-third of the installed belts during this period. In studying effectiveness, ACIR found that seat belts reduced major and fatal injuries by about one-third, largely due to the prevention of ejection.

In a study of instrument panels, analysis showed that padded panels were associated with lower injury severities than non-padded panels in lower force accidents.

Although the success of the ACIR project, along with others at Cornell and other research institutions, attests to the value of existing research—the majority of the problems in traffic safety have yet to be attacked. We would commend, therefore, the stress of many of the proposed bills before this Committee in support of research on a broad front to be conducted through all available agencies of government and contracted research.

*Injury risk index by type of principal impact and the contribution of each type to the all impact types injury index (1956+cars; 1-2-4-8 injury weights)*

	Type of principal impact					
	All impact types	Front	Side	Rear	Rollover	Other
Percent of occupants by impact type.....	100.0	46.9	12.8	7.2	19.5	13.7
Cause of injury:						
Steering assembly:						
Injury risk index <sup>1</sup> .....	.2536	.3785	.1755	.0426	.1223	.1963
Contribution to all impact types index <sup>2</sup> .....	.2536	.1775	.0225	.0031	.0238	.0268
Instrument panel:						
Injury risk index.....	.2496	.3759	.1812	.0746	.0904	.1988
Contribution to all impact types index.....	.2496	.1762	.0232	.0054	.0176	.0272
Ejection:						
Injury risk index.....	.2209	.0682	.3172	.0544	.5812	.2290
Contribution to all impact types index.....	.2209	.0320	.0406	.0039	.1131	.0313
Windshield:						
Injury risk index.....	.1686	.2336	.1211	.0203	.1162	.1428
Contribution to all impact types index.....	.1686	.1095	.0155	.0015	.0226	.0195
Door structures:						
Injury risk index.....	.1386	.0855	.3423	.0560	.1551	.1495
Contribution to all impact types index.....	.1386	.0401	.0438	.0040	.0302	.0204
Top structures:						
Injury risk index.....	.0530	.0229	.0383	.0219	.1465	.0535
Contribution to all impact types index.....	.0530	.0107	.0049	.0016	.0285	.0073
Backrest of front seat (top):						
Injury risk index.....	.0501	.0575	.0407	.0741	.0281	.0526
Contribution to all impact types index.....	.0501	.0269	.0052	.0053	.0055	.0072
Front Corner Post:						
Injury risk index.....	.0412	.0387	.0738	.0048	.0303	.0540
Contribution to all impact types index.....	.0412	.0181	.0095	.0003	.0059	.0074
Backrest of front seat (lower):						
Injury risk index.....	.0352	.0494	.0224	.0362	.0112	.0325
Contribution to all impact types index.....	.0352	.0232	.0029	.0026	.0022	.0044
Rear view mirror:						
Injury risk index.....	.0245	.0318	.0155	.0053	.0183	.0266
Contribution to all impact types index.....	.0245	.0149	.0020	.0004	.0036	.0036

<sup>1</sup> Injury risk index =  $\frac{1-2-4-8 \text{ injury score}}{\text{Number of occupants for indicated impact type}}$

1=minor 2=nondangerous.  
4=dangerous 8=fatal.

<sup>2</sup> Contribution to all impact types index = (injury risk index) × (percent of occupants by impact type) ÷ 100.  
The sum of the impact type contribution indices equals all impact types injury risk index.

The contribution index for each impact type =  $\frac{1-2-4-8 \text{ injury score}}{\text{Total number of occupants (all impact types=26,131)}}$

as the denominator of the risk index equals the numerator of the percent of occupants by impact area.

This form was used in the calculation of the contribution index. The injury risk index constitutes the vertical scale in figure 3; the percent of occupants is shown below the impact area. The product of these two factors constitutes the contribution index.

Since the contribution indices all have the same denominator, they are additive.

## APPENDIX A

SOME BASIC REQUIREMENTS FOR HIGHWAY TRANSPORTATION RESEARCH AS  
SUGGESTED BY CORNELL AERONAUTICAL LABORATORY, INC., BUFFALO, N.Y.

### SUMMARY

A survey of promising areas of highway transportation research is presented by Cornell Aeronautical Laboratory on the basis of its nearly 20 years experience in the field. Six areas of research are outlined which the Laboratory



believes could be immediately pursued to the enhancement of highway safety and efficiency.

#### *1. Crash mechanics*

Mathematical techniques were recently used by CAL in the development of a theory for predicting the behavior of highway guard rails during impact. Computer studies, based upon this theory, suggested a totally new guard rail design—the “semi-rigid continuous beam and flexible post” concept, now in use by New York State. The mathematical techniques, successfully used in the design of this improved guard rail, are applicable on a much broader basis for the rational design of automobile structures to minimize crash forces. A body of predictive theory should be developed.

#### *2. Specification of handling characteristics for automobiles*

At the present time little is known of the requirements for automobile stability and control characteristics which are satisfactory to the average driver and can then be related to safety. However, research and development in the aeronautical field have made it possible to specify numerically the characteristics of satisfactory handling qualities for aircraft. Such aeronautical research techniques as flight variable stability simulation, with which CAL is experienced, can be readily exploited in the automotive field. A start has already been made in this direction with basic research performed by Cornell Aeronautical Laboratory.

#### *3. Highway system operational theory*

If substantial progress is to be made in understanding and, hence, controlling the interrelationships between highway design, driver behavior and traffic flow, basic theories must be developed. Up to now, no one has sufficiently developed concepts permitting the theoretical description of even normal highway operation. A variety of approaches and mathematical models for developing unified concepts has been suggested by recent studies. These should continue to be pursued in order to establish a firm theoretical basis for highway design and operation.

#### *4. Accident causation*

The actual cause of accidents is still largely conjecture. An amplification and modification of the basic Auto Crash Injury Research technique offers a feasible approach to determining accident causation. The potentialities inherent in a broadening of the ACIR process to include accident causation are great, particularly if supplemented by coordinated clinical research programs.

#### *5. Driver skill enhancement*

Driver training and licensing is largely procedural at present. Nevertheless it is generally recognized that in a marginal or potential accident situation driver skill may become an important factor. Significant questions arise as to the possibility of driver skill improvements among large masses of drivers. CAL's experience suggests that important areas for basic research are training techniques, incentives for improvements of driver skills, and measures of effectiveness.

#### *6. Accident counter-measure evaluation*

No broad program of highway research and action measures can be effective without appropriate data collection of actual highway accidents in an amount and comprehensiveness permitting evaluation and inspection of the results of counter-measures. ACIR has been an effective surveillance program for injury-producing accidents, but it should be expanded to provide statistical data on all types of accidents. Such a program would be particularly helpful in evaluating the effectiveness of government-established standards for vehicle design.

#### HIGHWAY SAFETY AND EFFICIENCY RECOMMENDATIONS BASED ON CORNELL AERONAUTICAL LABORATORY EXPERIENCE

Cornell Aeronautical Laboratory has been engaged in highway transportation research for nearly 20 years under government and private sponsorship. This represents a substantial technical experience from which we are attempting to draw worthwhile recommendations of research areas which could be immediately pursued to the enhancement of highway safety and efficiency. Speaking then from

the standpoint of our own, firsthand, experience, six research areas appear important though these are admittedly not all inclusive:

1. Crash Mechanics.
2. Specification of Handling Characteristics for Automobiles (improved drivability and safety).
3. Highway System Operational Theory.
4. Accident Causation.
5. Driver Skill Enhancement.
6. Accident Countermeasure Evaluation.

No priority of importance should be attached to the order of listing; we believe that substantial work will be required in all of these areas and on a continuing basis. In this listing, the driver enters items 2, 3 and 5 as an important interactional element. Thus the essence of the familiar "driver-vehicle-highway-environmental" system is represented by our recommended research areas. There are, in our opinion, immediate payoffs in research on the system components; broader and longer term payoffs will occur when our technology permits us to tackle larger system segments.

We would like to define these research areas more specifically and suggest profitable research possibilities:

#### *1. Crash mechanics*

Research performed for New York State over the last few years has enabled the development of a theory predicting the behavior of highway guardrails. Computer studies, based upon this theory, suggested a totally new approach to guardrail design (the "continuous beam and flexible post" concept). This has now been proven in hardware and is rapidly going into use.

The significance here is that the mathematical techniques used are applicable upon a much broader basis for the design of automobile structures to minimize crash forces and, hence, as a basis for the rational design of automobile structures from the collision standpoint.

We stress the theory of crash mechanics as it is the only way to handle all of the complex interactions and obtain rational design criteria. In short, a theory, specifically substantiated by experiment, enables necessary generalizations and predictions.

Could these theoretical and practical developments be carried forward, one could anticipate an incremental jump in automobile crash worthiness. The approach is fundamental as it would become a basic element of car design—not an optional device to be forgotten or discarded when most needed.

#### *2. Specifications of handling characteristics for automobiles*

The automobile is a dynamic device whose motion behavior approximates the complexity of that of the modern airplane. At the present time no one knows the range of stability and control characteristics which are satisfactory for the average driver in typical highway operational tasks. A complete understanding of car stability and control will stem from theoretical and experimental developments technically comparable to the foundations underlying, say, radio and television. There is one great hope for rapid advance in this area: Since World War II, our government has spent, literally, billions of dollars on aircraft and missile control and guidance, and this work is, in principle, transferable to the automobile.

We are able to report that a substantial start has been made in this direction. In 1950, Cornell Aeronautical Laboratory initiated an automotive handling characteristics program under its own funding; subsequently, in 1952, the Laboratory interested General Motors in sponsoring a continuation of this research. Inasmuch as General Motors had long been interested in obtaining a basic understanding of car control, they continued to sponsor this work for a ten year period and at a level of approximately one million dollars. Knowledge of car stability and control is heavily dependent upon an understanding of the pneumatic tire, and the aforementioned research was supplemented by about  $\frac{3}{4}$  of a million dollars worth of associated tire research for the Air Force and all of the major tire companies. The research to date enables the behavior of an automobile to steering, wind and road disturbances to be accurately predicted. Techniques have just reached a stage of integration into design groups, which will, of course, involve time and education. It urgently needs to be carried forward for use in highway systems analysis, but more important is the initiation of handling



qualities research which can be based upon the foundation already established and which logically follows.

Handling qualities refers to an evaluation of the car-driver combination in relation to the driving task, such that acceptable vehicle characteristics may be defined. The aeronautical field has a great deal to offer in that it is now possible to numerically specify the characteristics of a satisfactory handling aircraft for operational tasks. We, ourselves, have been engaged in the aircraft picture for over twenty years and such tools and techniques as variable stability can be readily exploited in the automotive area.

The possibilities inherent in the area of automobile stability and control, and handling, are so enormous that they defy easy summarization; suffice to point out that we would anticipate that the future will bring dramatic advance in effective tire-road friction thus increasing operational limits and skid margins, particularly on turns. Our research to date has shown the nature of the dependence of car control upon speed and has suggested ways of reducing the differences in handling between the high and the low speed automobile. In a recent study for the Department of Commerce of automobile transportation in the Boston-Washington Corridor, we suggest taking advantage of these and other developments to move traffic at higher speeds with enhanced safety.

### *3. Highway system—operational theory*

If substantial progress is to be made in understanding and, hence, controlling the interrelationships between highway design, driver behavior and traffic flow, basic theories must be developed. We do not know these relationships at the present time and it is impossible to imagine that they can be established outside of the framework of a theoretical base. Modern developments in electronics, for example, stem directly from electromagnetic theory, practical atomic developments from atomic physics, etc. Up to now, no one has been able to come up with traffic and driver behavior concepts which will permit of the complete theoretical description of normal highway operation much less breakdown or the system which results in accidents. Whether these unifying concepts will be based on particle theory, continuous flow theory, communication theory concepts, etc., cannot be said; but there is every reason to continue to pursue a variety of approaches and mathematical models.

One example of a new and novel approach to the urban intersection problem is that being used by CAL in a Bureau of Public Roads program. Approaches to intersection analysis have universally depended upon various assumptions stemming from statistical measurements at intersections; our approach, in this instance, has been the adoption of mathematical simulation techniques from operations research. This approach is an attempt to predict from first principles and known psychological behavior urban traffic intersection performance. It has been possible to simultaneously take into account human perception, decision making, information processing, and response characteristics. Such elements as vehicle dynamics, the geometry of the intersection, sight distances, view obstructions and types of traffic control can and have been considered in digital computer models.

This work is now being validated at real intersections. Through an arrangement with New York State we plan to vary the traffic control, the obstacles, the approach speeds, etc. at an actual highway intersection. In the past, the authorities have naturally been reluctant to experiment upon the actual highway, thus overlooking, of course, a tremendous research potential. The possibility of doing this kind of learning, safely, constitutes in our opinion a major breakthrough in highway research.

We are also heavily committed to research in traffic operations directed at predicting congestion or facility saturation. Satisfactory prediction methods will then be used through communication techniques with drivers to reroute traffic and insure overall system stability. An ultimate aim here, which we feel should have high research priority, is that of centralized computer control of traffic in large areas with a control which is sensitive to both traffic and time elements.

In the geometric design of highways there is little real rationale since design largely follows federal warrants based upon old-line civil engineering experience. The technical base is available however for rationalizing highway geometrics, speed limits, on-and-off ramps, maneuvering distances, etc. We can demonstrate large difference in the safety margin against skidding when operating at legal speed limits on various types of current highways. In time, these differences should be reduced.

#### 4. Accident causation

The actual cause of accidents remain still largely conjecture. It is our opinion that an amplification and modification of the basic Automotive Crash Injury Research statistical technique offers an approach to accident causation. As you know this statistical sampling has been able to detect, in connection with injury producing accidents, such an important element as ejection.

As a matter of fact, an attempt is being made at the present time in ACIR to relate accidents to highway features. The idea is to correlate known characteristics of the highway such as sight distance, road width conditions, etc. with accident statistics. Unfortunately, this attempt is being frustrated by lack of uniformity in data from various states, lack of information in a given state, and lack of up-to-date data.

Nevertheless, the potentialities inherent in a broadening of the ACIR process to include accident causation is great, particularly if it were backed up by co-ordinated clinical research program. For most effectiveness, the amount of data available to ACIR would have to be increased beyond the present sampling areas and suggest that some uniform arrangement with the states would have to be worked out.

We are pleased to report that, under a recent contract from the Automobile Manufacturers Association, we are now beginning to look into accident causation using Buffalo as a sample area by collecting 'on-the-scene' data from actual accidents. Reports on the results of this research will be publicly available. Ultimately a broader based program will be needed but should benefit from this prototype program.

Another facet of information gathering for accident causation analysis is the objective of a program for the Bureau of Public Roads currently underway at CAL. In this project automatic instrumentation in the nature of continuous recording of the intersection scene is under development.

#### 5. Driver skill

Driver training and licensing remains largely procedural at the present time. Nevertheless it is generally recognized that in a marginal or potential accident situation evasive maneuvering may become important, and hence driver skill in relation to vehicle characteristics. Significant questions arise as to whether driver skill improvements can be achieved in large masses of drivers, the incentives that could be used for skill improvement and the training techniques involved. Our experience would suggest that these are all important areas for basic research. Since in the foreseeable future, potential and actual emergencies are bound to arise on the highway, it would be our thought that research should thus be directed toward driver skill. In the aeronautical field, it has long been customary to place undetermined causes of accidents on "pilot error". Experience to date, however, indicates that true pilot error is seldom involved but rather that the system/vehicle combination saturates human capability or through rapidity of breakdown requires unreasonable precision in decision making. We believe that there is a uniformity of behavior in normal drivers which makes possible analysis of many of these situations and would facilitate an approach to mental and physical skill training.

We also foresee possibilities in training at the high school level, for incipient skid and advanced motorist-type training, which has seen some success in Europe. Surprisingly enough, experience from competition motoring might have a substantial payoff here.

There is some scientific evidence that the consistency of a driver's performance is related to safety. It is possible to envision types of instrumentation and display which would indicate to the driver his consistency and the variations in his driving margins under various circumstances. We believe that such equipment might provide an incentive for better driving habits and for a perpetual technique improvement program on the part of the individual driver.

A thorough examination of the incentives in terms of reduced insurance rates, etc. should be instituted.

#### 6. Accident countermeasure evaluation

No broad program of highway research and action measures can be effective without appropriate data collection of actual highway accidents in an amount and comprehensiveness permitting evaluation and inspection of the results of countermeasures. ACIR has constituted an effective surveillance program for



the injury-producing type accident but it should be expanded on a much broader base to provide statistical data on all types of accidents. A surveillance program of this type would be particularly valuable, if government standards for vehicles are established, as a means of evaluating the effectiveness of such standards and pointing to avenues for improvement.

In this brief survey of recommendations based upon CAL experience, we have intentionally avoided developmental type activity. The research we have discussed constitutes, in our opinion, fundamental core activity upon which practical hardware developments could take place as well as specific system modifications. We have laid heavy emphasis upon the development of theory. In the several areas discussed we would envision the necessity for early initiation of five to ten year basic research programs.

## APPENDIX B

### AUTOMOTIVE CRASH-INJURY RESEARCH BULLETIN NUMBER 2

#### BULLETIN, AUTOMOTIVE CRASH INJURY RESEARCH, OF THE CORNELL AERONAUTICAL LABORATORY, INC.

1. "Theoretical Prediction of the Trajectory of Automobiles After Side Impacts", D. F. Moore, Cornell Aeronautical Laboratory, Inc., Report No. VJ-1823-R13, April 1965.

The case of an automobile obliquely striking another is analytically studied, and the sequence of events during and after impact is divided into three phases: initial impact and momentum interchange, motion of both vehicles as a hinged body prior to separation, and separate trajectories until the vehicles are brought to rest. Transverse sliding frictional forces appear at the tire/ground interface during all three phases. Also, load transfer onto each wheel is included during the first two phases, and a rolling resistance is introduced for the separate trajectories. A crushing moment is simulated between the vehicles during the second phase; and one second after break-away the drivers are assumed to brake the automobiles under locked wheel conditions. Important variables are: initial angle of impact, point of impact relative to the struck automobile, and the weights and initial speeds of the colliding vehicles.

2. "Sex Comparisons in Automobile Crash Injury", E. A. Narragon, Cornell Aeronautical Laboratory, Inc., Report No. VJ-1823-R15, February 1965.

Under comparable accident conditions, injuries to men and women are compared. Generally, they do not differ in terms of injury severity, but for some reason not fully understood, women seem to be reported as injured about eleven percent more often.

3. "Observations on Fire in Automobile Accidents," by Shirley J. Robinson, Cornell Aeronautical Laboratory, Inc., Report No. VJ-1823-R14, February 1965.

In rollovers, fire is more frequent, more extensive, and fatal occupant burns are more frequent than for other types of accidents. Fire is also more frequent when the car is impacted from the rear, and burn injuries (especially nonfatal) are relatively more frequent.

4. "Age Comparison in Automotive Crash Injury Research," T. Hopens, Cornell Aeronautical Laboratory, Inc., Report No. VJ-1823-R12, December 1964.

Under comparable accident conditions, injuries are compared for occupants over 60 years and adults 20-59 years. For older persons, injuries are fatal about twice as often. Suggestions regarding belts, seated position, etc.

5. "A Report on the Safety Performance of 1962-1963 Automobile Door Latches," John W. Garrett, Cornell Aeronautical Laboratory, Inc., Report No. VJ-1823-R7, December 1964.

Further latch changes have brought further improvement in reducing doors opening. Corporate trends and difference among the "Big 3" are cited. Hinge failure trends are documented.

6. "Automobile Glazing as an Injury Factor in Accidents," B. J. Campbell, T. Hopens, Cornell Aeronautical Laboratory, Inc., Report No. VJ-1825-R1, December 1964.

Injuries associated with safety glass (tempered and laminated) in side window are studied. This class of injuries is relatively infrequent, and within the sensitivity of ACIR data, no reliable differences were detected.

7. "Automobile Crash Injuries in Relation to Car Size," J. K. Kihlberg, E. A. Narragon, B. J. Campbell, Cornell Aeronautical Laboratory, Inc., Report No. VJ-1823-R11, November 1964.

Cars in three weight classes involved in comparable accidents were studied with respect to occupant ejection, injury, and deaths. Cars in the smallest group (less than 2000 pounds) showed higher ejection and fatality figures. Cars in the middle group (2000-2999 pounds) were in between, and larger cars (3000 pounds and over) had lowest figures.

8. "Driver Age and Sex as Related to Accident Time and Type," B. J. Campbell Cornell Aeronautical Laboratory, Inc., Report No. VJ-1823-R10, October 1964.

Simple tabulations show, for example: (1) men and young people relatively more often in night accidents, (2) women and older people more often in the struck (rather than the striking) vehicle in two-car accidents.

9. "Open Glove Box Doors as a Possible Injury Source in Automobile Accidents", B. J. Campbell, H. K. Gensler, Cornell Aeronautical Laboratory, Inc., Report No. VJ-1823-R9, September 1964.

Past accident photos show glove box doors to be open in a relatively large portion of cases. This is indicated to be a somewhat increased hazard, but is clearly one of the much lower ranking injury sources.

10. "ACIR Undertakes Study of Truck Accidents", B. J. Campbell, ACIR Bulletin Number 7, September 1964.

A new study of tractor-semi-trailer accidents is underway and injury sources are being tabulated. It appears that ejection plays a role, as does sleeper-berth injury. At present, available cases are too few for a detailed analysis.

11. "Essays in Statistical Analysis", J. K. Kihlberg, T. Hopens, E. A. Narragon, H. K. Gensler, Cornell Aeronautical Laboratory, Inc., Report No. VJ-1823-R8, June 1964.

A series of theoretical papers dealing with statistical methodology, techniques, and problems.

12. "Automobile Fire in Connection with an Accident", B. J. Campbell, J. K. Kihlberg, ACIR Bulletin Number 6, February 1964.

In ACIR data, fire is reported in less than one-half of one percent of cases. No evidence was noted for a difference in fire incidence for front and rear engine cars. Over several model years incidence remained low but some shifts did occur.

13. "A Study of School Bus Accidents in North Carolina", B. J. Campbell, J. K. Kihlberg, Cornell Aeronautical Laboratory, Inc., Report No. VJ-1823-R6, January 1964.

Analysis of state data from North Carolina concerning 900 school bus accidents suggests differences between adult and student bus drivers. In light of these apparent differences, suggestions are made concerning emphasis in the North Carolina school bus driver training and certification program.

14. "A Study of Seat Belts in Wisconsin Automobile Accidents", John W. Garrett, Cornell Aeronautical Laboratory, Inc., Report No. VJ-1823-R3, September 1963.

A study comparing seat belt installation and usage in states having legislation requiring seat belts and those with no such legislation. In the sample, 30 to 60 percent of persons in accidents were wearing their belts.

15. "A Study of Injuries Related to Padding on Instrument Panels", B. J. Campbell, Cornell Aeronautical Laboratory, Inc., Report No. VJ-1823-R2, August 1963.

Occupants in identical make cars with and without panel padding were matched and compared. Results indicate that in forward-force accidents in the not-too-severe range, padding is beneficial in reducing or preventing injuries. Severe and fatal injuries occur with almost equal (low) frequency whether or not the panel is padded. It was concluded that more improvement will be necessary before the instrument panel will be changed from its prominent association with injury in automobile accidents.

16. "A Review of Automobile Seat Belt Installation Trends and a Survey of New Jersey Experience", B. J. Campbell, Susan Lieberman, ACIR Bulletin Number 5, May 1963.

Data for the entire New Jersey motor vehicle population indicated a steady growth in seat belts, but that less than three percent of New Jersey cars were so equipped. Indications were that 11.9 percent of 1963 cars had belts. Estimate for New Jersey (1962) was remarkably close to data based on the entire Utah (1962) motor vehicle population. Both estimates are below those of recent surveys based on *samples* from many states.



17. "Analysis of the Dynamics of Automotive Passenger Restraint Systems", Raymond R. McHenry, Cornell Aeronautical Laboratory, Inc., Report No. VJ-1823-R1, May 1963.

This report describes a complex mathematical model developed for simulating the dynamics of seat belts and combination restraints. Equations representing a human body, belt system, and a vehicle (car) system were written, and interactions of these equations were expressed for vehicle-impact conditions. Solution of the equations by use of a digital computer permits simulation of many crash conditions, belt systems, and webbing materials, without expensive crash tests. It also permits variations of a single system characteristic, while repeating simulation of otherwise identical crash conditions. Preliminary results indicate that the model closely agrees with actual tests.

18. "Ocular-Orbital Injuries in Automobile Accidents", John W. Garrett, ACIR Bulletin Number 4, March 1963.

Injuries to the eye or eye area are sustained by about seven percent of persons in the ACIR sample, twice as often for front-seated occupants. Among those with such injuries, more than one-third suffered loss or impairment of vision. (This paper was given at the Symposium on Traumatic Ophthalmology held in New Orleans, February 1963.)

19. "Seat Belts in Convertible Car Accidents?", B. J. Campbell, ACIR Bulletin Number 3, October 1962.

A common belief is that in the event of a convertible rollover, ejection may be preferable to being held inside the car by a seat belt. Ejectees and non-ejectees from convertible rollovers are compared with cars of other body styles. As in other cars, nonejectees suffer less injury than ejectees, even in convertible rollovers.

20. "The Seat Belt Syndrome", John W. Garrett, Paul W. Braunstein, M.D., Journal of Trauma, May 1962.

To determine whether seat belts cause injury, the relationship between use of seat belts and injuries to the abdomen, pelvis, and lumbar spine was studied. Seat belt failure was also examined. Frequency of lower torso injuries was similar for injured belt users and injured non users. Serious injuries among the belt users were usually associated with the more severe accidents. Belt failure occurred among less than one percent of all belts. Belt failure implies that the wearer exerted force exceeding the belt's strength, but only one serious lower torso injury was found among the belt failure cases.

21. "Evaluation of Effectiveness of Door Locks on Pre-1956 and Post-1955 Automobiles", John W. Garrett, Public Health Reports, May 1962.

The hazard associated with occupant ejection during an accident has been described. In this paper, data from rural injury-producing accidents were examined to evaluate effectiveness of safety door locks used by American automobile manufacturers since 1956. Findings indicated a substantial decrease in frequency of door opening (32.8 percent), occupant ejection (39.6 percent), and dangerous-fatal injuries (11.6 percent). It was estimated that if no doors opened, the potential reduction in dangerous and fatal injuries would be approximately 27 percent, and that safety door locks had achieved about 32 percent of the potential reduction. The savings in human lives if all cars had been equipped with these locks was calculated to be about 1,800 annually. At that time, the savings amounted to perhaps 800 lives, since many pre-1956 cars were still in use.

22. "The Discovery and Control of Ejection in Automobile Accidents", Robert A. Wolf, The Journal of the American Medical Association, Vol. 180, pp. 220-224, April 1962.

A summary of the sequence of events leading to identifying ejection as the prime danger in accidents, and of the role of seat belts and safety door latches in reducing ejection.

23. "Leading Causes of Injury in Automobile Accidents," Seymour Schwimmer, Robert A. Wolf, Automotive Crash Injury Research, 1962.

Ten leading causes of crash injury in post-1955 cars are ranked as follows: Steering Assembly, Instrument Panel, Ejection, Windshield, Door Structures, Top Structures, Backrest of Front Seat (top), Front Corner Post, Backrest of Front Seat (bottom), and Rear View Mirror. Applying different weighing schemes to degree of injury did not result in major shifts in rank. Data were

divided into five accident impact types, and the same ranking procedure was employed:

- (1) Front Impact—Steering Assembly and Instrument Panel.
- (2) Side Impact—Door Structures and Ejection.
- (3) Rear Impact—Instrument Panel and Backrest of Front Seat (top).
- (4) Rollover—Ejection and Door Structures.
- (5) "Other"—Ejection and Instrument Panel.

24. "The Consistency of ACIR Accident-Injury Relationships in Four States," B. J. Campbell, Automotive Crash Injury Research, June 1961.

A necessary condition for widespread applicability of ACIR findings is that the relationships between accident factors and injury be consistent from state to state. A study of data from four widely scattered states indicated consistency of magnitude and direction of accident-injury relationships for 39 combinations of factors.

25. "The Reliability of Rating Procedures Used at Automotive Crash Injury Research of Cornell University," B. J. Campbell, Research Review in Traffic Safety, Vol. 5, No. 2, June 1961, pp. 14-19.

Key variables in ACIR data are subjective ratings of injury severity and degree of car damage. Inter-rater reliability is important. Four raters judged 200 cases and it was found that inter-rater agreement was reasonably good and was without detectable bias.

26. "A Comparison of ACIR Samples with Complete State Data," B. J. Campbell, Automotive Crash Injury Research, February 1961.

A necessary condition for meaningful findings is that ACIR data be representative of the states sampled. A comparison of ACIR sample data with complete state data (four states) with respect to several accident variables indicated that ACIR data are adequately representative.

27. "Safety Belt Effectiveness in Rural California Automobile Accidents," Boris Tourin, John W. Garrett, Automotive Crash Injury Research, 1960.

The study concerned injury frequency and severity among 933 driver and right front seat occupants of passenger automobiles that used safety belts and 8,784 driver and right front seat occupants that did not. Data were drawn from standard accident reports used by the California Highway Patrol. When the belt and non-belt groups were studied under comparable conditions, it was found that risk of serious injuries or death was 35 percent less for belt users. Injury reduction was related largely to belt effectiveness in preventing ejection.

28. "A Report on Safety Belts to the California Legislature: Summary and Analysis of California Highway Patrol Reports and Opinions on 54,348 Automobile Accidents", Boris Tourin, John W. Garrett, Automotive Crash Injury Research, 1960.

Of 54,348 automobiles involved in rural accidents investigated by the Patrol in 1958, approximately 3.5 percent contained one or more safety belts. Among belt-equipped cars, only one-third of belts available to occupants were in use at the time of the accident. (More recent data from other sources indicate higher usage figures.)

29. "Ridit Analysis of Automotive Crash Injuries", Irwin D. J. Bross, Rivkah Feldman, Automotive Crash Injury Research, 1956.

30. "How to Use Ridit Analysis", Irwin D. J. Bross, Biometrics, Vol. 14, No. 1, March 1958, pp. 18-38.

Since injury severity is rated on a subjective scale, assigning weights and interpreting averages therefrom may give misleading results. Rigid analysis allows "weights" to be interpreted in probability terms. It is thus possible to give "odds" that one group is better off than another with respect to injury results of accident factors under study.

31. "Ejection and Automobile Facilities", Boris Tourin, Public Health Reports, Vol. No. 73, No. 5, 1958, pp. 381-391.

It was found that 13.6 percent of occupants in injury-producing accidents were ejected and that they showed significantly more frequent fatal injuries than persons not ejected. If ejection could be completely prevented, ejectees would remain in the car and be exposed to the reduced death risk characteristic of non ejectees. Though some ejectees would have been killed even if they remained in the car, it nevertheless appears that a 25 percent reduction in fatalities among the passenger car occupants would be possible. Elimination of ejection on a nationwide scale could save 5,500 lives yearly. Ejection could be prevented by use of seat belts and by refinements of door latch mechanisms.



## 32. ACIR Brochure.

A brief non-technical brochure describing ACIR.

## 33. ACIR documentary film.

A color, sound film, describing ACIR principles, data collection, and findings. Available for loan, but film supply severely limited.

The following papers are out of print, but since several appear in periodicals, they are abstracted here.

## 34. "Traffic Accidents Involving Guard Rails", Kenneth J. Tharp, Cornell Aeronautical Laboratory, Inc., Report No. VJ-1823-R5, December 1963.

A study of guard rail accident data furnished to ACIR by the Highway Research Board. Data indicate slight differences in occupant injuries related to penetration of guard rail, type of guard rail, and speed of impact. (Note: Another guard rail study, much more extensive in scope, is available as CAL Report No. VJ-1472-V4.)

## 35. "Selected Papers from the Automotive Crash Injury Research of Cornell University", Human Factors in Technology, McGraw-Hill, Chapter 13, pp. 230-246, 1963.

A general summary of selected ACIR papers.

## 36. "Seat Belt Effectiveness in the Non-Ejection Situation" B. J. Campbell, Jaakko K. Kihlberg, proceedings of the Seventh Stapp Car Crash Conference, University of California at Los Angeles, 1963.

The paper described injuries to 232 pairs of closely matched car occupants, half wearing lap seat belts and half not wearing seat belts. Lap belts prevent ejection, but there may be limitations in the degree to which they prevent injury from contact with components of the car's interior. The paper calls for increased research into upper body restraint as a supplement to lap belts.

## 37. "The Studies of Injuries Produced by Automobile Accidents," B. J. Campbell, Automobilm e automobilismo industriale, Italy, May 1962.

A general summary of selected ACIR papers.

## 38. "The Child in Injury-Producing Automobile Accidents" John Moore, Robert Lillienfeld, Traffic Safety Research Review, Vol. 4, No. 1, March 1960, pp. 16-21.

The study described three age groups (children to 11 years, adolescents 12 to 18 years, and adults over 18) with respect to injury frequency, severity, or pattern. Children tend to be less severely injured, partly because they more often occupy rear seats (where injury is characteristically less severe). Nevertheless, children tended to be less severely injured than adults in comparable seated positions.

## 39. "The Fallacy of the Term 'Whiplash Injury'". The American Journal of Surgery, Vol. 97, No. 4, April 1959, pp. 522-529.

The incidence of cervical injury in the ACIR injury-producing sample is small. ACIR experience indicated "whiplash" injury cases were seldom associated with clear-cut diagnosis of cervical injury and were frequently unaccompanied by other serious injuries.

## 40. "A Study of Speed in Injury-Producing Accidents: A Preliminary Report", John O. Moore, American Journal of Public Health, Vol. 48, No. 11, November 1958, pp. 1516-1525.

Data on 3,203 automobiles and 7,154 occupants in injury accidents were examined for association between speed and injuries. There was a general rise in injury with increasing speed, but many injuries and deaths occurred at reasonably low speeds.

## 41. "Preliminary Findings of the Effect of Automotive Safety Design on Injury Patterns", Paul W. Braunstein, John O. Moore, Preston A. Wade, M.D., Surgery, Gynecology, and Obstetrics, September 1957.

Preliminary findings regarding the efficacy of "safety design" features in 1956 cars indicated a decrease in doors opening and ejection. Preliminary data on seat belts predicted dramatic effects. These findings have been confirmed in essence, though modified in specifics by later studies, based on larger samples.

## 42. "Medical Aspects of Automotive Crash Injury Research", Paul W. Braunstein, Journal of the American Medical Association, Vol. 163, January 1957, pp. 249-255.

To determine the medical findings that might be expected among persons injured in automobile accidents, 1,000 injury-producing accidents were studied. Head injury was most frequent, followed by injuries to extremities, torso, and spine. Multiple injury was common, consisting usually of head injury and injury

to another body area. Many specific injury types and patterns were discussed. Special skills for emergency care and rehabilitation are discussed.

Mr. Ross. Our laboratory has worked in the field of automotive safety research for some 20 years, in many facets of it. I, myself, have been in research for about 35 years. I feel that the laboratory and I are in position to speak for the process of research.

I would like to speak only to the requirement of the research process. There are legal questions that would be close to what I am about to say which are not in my expertise and I refer them to you for consideration.

I address myself to the problem which has been before you of the confidential nature of data gathered in connection with an accident. I realize that this has been a subject that has been approached from many different angles but I would like to stress as far as our experience would indicate that unless we can completely separate an investigation of an accident in a dispassionate sense for the purpose of research to find out something about accidents in general from the necessary, and I would hope, concurrent, process of its investigation for any issues that may be involved in litigation or in criminal investigation, unless we can separate those two, unless we can assure any person to whom we speak in the research process that what he says will not be used in court, we know that we will have to sacrifice a great deal of research input.

Now this may be our best decision, it may be necessary that we do this. We may not have any other way to approach this matter but I think we should not act without recognizing that fact. We are all quite unobjective about the mistakes we constantly make in traffic. I think we would all admit that whenever we come to a near accident we certainly react, "Whose fault is this? Not mine."

If one is talking to a person involved in an accident, if he forces himself to be completely objective it is quite possible he could tell you, "I was looking at a billboard at this location when I should have been looking at the road."

If enough people gave you that sort of information you would have an amount of data which allowed the inferential conclusion that the billboards should not be at that place. But it is most unlikely that anyone will give you that reaction if he knows that the other fellow was probably also looking at the billboard but will not admit it and that whatever he says will enter into the allocation of damages or criminal liability in the matter.

An example of this has been the experience in the aircraft accident field. I remember some years ago, and I am not exactly sure of my sources here but I believe it was the FAA, was seeking to look at the question of near misses during that period when a lot of accidents were almost happening in the air.

In seeking to get from pilots information about those near misses that they might improve on their control patterns and so on they did everything they could think of. They went so far as to announce that anyone who made a report would not be held liable, nothing that could be said would possibly be held against him. They got no data.

They finally contracted with a flight safety foundation, as I recall, to receive at post office box such and such in New York any report that any pilot cared to make.



They required that he give his name and time of incident, otherwise, it would be invalid data. They promised that data would be in the hands of an independent agency and would not be used in any way against the pilot.

Then they began to get data. They began to find something about this situation and they were enabled to justify steps that they have since tried to take to avoid those situations.

I find this quite analogous to the automotive accident research picture. I recognize the embarrassment that we have legally of trying to separate these two processes. I give you no judgment as to the legal problem but I assure you that unless we can separate those two processes by making data collected in the course of research inviolate and protected from use for other purposes, unless we can do this, I am quite certain in my experience that we will not be able to conduct broad types of investigation of utility into the cause of accidents.

I submit that the injustice done some individual who is deprived of potentially available data is less important than the injustice to the greater group if we do not get at this problem.

Thank you. I will be glad to answer questions.

Mr. FRIEDEL. How do you obtain money for research? Through insurance companies or automobile industry?

Mr. ROSS. A number of sources. For the automotive crash injury research, work which is an investigation of injuries caused in accidents, our funding comes in part from public health, in part from the Automobile Manufacturers Association and in the past there was a period when part of it came from the Army. Various sources have supported that work.

Presently it is the automobile manufacturers and public health in that particular area. In other areas of our research we have been supported by insurance companies, have used some of our own funds in internally sponsored research, we have done work for the automobile manufacturers, such as for General Motors specifically in the stability of handling quality of automobiles.

We have worked for the tire companies in the character of the tire as it relates to the handling of an automobile. Our sources in all of our research tend to be diffuse. We try to keep separate and detached from any one organization.

Mr. FRIEDEL. Have you made any recommendations on safety devices?

Mr. ROSS. Yes, we take some substantial part of the credit for popularizing the seat belt and for insisting upon standards of its installation that would make it a safe device.

Some of our findings showed differences in door latches and are a basis for some of the improvements that were made in door latch design. We have made a number of other recommendations of a more general nature in a safety car which we built as a prototype. That was not a very pleasant looking automobile and I don't wonder that it was not immediately put into production but it pointed out some things that have been used and some things that could be used.

Mr. FRIEDEL. Thank you. Mr. Moss?

Mr. MOSS. I am very much interested in your progress and the extent to which privilege is attached to statistical information on

the end product of interviews and research now into causes of accidents.

I would like to say that I am not totally persuaded that you are at all accurate on that because in the 12 years as chairman of the information committee of the House I have heard this plea so many times that give us privilege and we can do almost anything. When we have caused the information to be available the damage which was envisioned has not occurred.

I think that many times the results of research are in the hands of the public even though perhaps the majority of instances the full appreciation of the technical details is not part of that public property.

Nevertheless they do respond and they bring out changes that are necessary and desirable. You talk now of the seat belts and the door latches. I think it is most commendable that we have them. I learned in here the other day for the first time that that safety door latch was only safe if you had the inside locks down.

Yet I have read instruction booklets with every car I ever bought and to my recollection, I have not gone back to check, I don't recall that fact being mentioned in any of the owners manuals and I average at least one new car each year.

Now for a number of years these have been standard. So even when they are adopted unless the information is given to the public, the full safety is not realized. Seat belts, many things went into that, Cornell Research undoubtedly was the most significant factor.

I think a former member of this committee had a major role in bringing about the first steps by government to require them. Again, unless the results of research are in the hands of the public the benefits cannot be realized. But out of this safety car what standards have been adopted as a result of that safety car experiment that has contributed more greatly to safety?

Mr. Ross. Might I for the moment set aside an answer to that to return to the first part of your remarks since your remarks were rather extensive?

Mr. Moss. Surely.

Mr. Ross. Let me make myself completely clear. I am not speaking to the question which has tended to enter into the discussion of the release of data, of the release of test results or data.

Mr. Moss. I know. The confidentiality of information given you as you investigate an accident.

Mr. Ross. We have published a great deal of data. There has been some misapprehensions about when we publish it and how we publish it. I stand on our record. I think we have done a useful job.

Mr. Ross. And you and I are going to discuss this later because I have some inquiries through my subcommittee, so that we will have an opportunity to develop that in another forum.

Mr. Ross. Yes.

To get back to the question, the issue is not to my mind what we do with data after we have it and whether that is prejudicial or not. It is that unless we can establish the position that we will not release the broad data of an individual accident we cut off a future sources of that data, that we will simply not be able to get it.

I think we must accept this. I think it may be the best answer. We may say that because of other reasons we accept this but I don't



think we should accept exclusion of that provision from the bills before you without a full recognition that that is indeed the prediction of an agency experienced in the field and a man with some background in research.

Now you asked additionally about what things have been done out of the safety car. I find it difficult to come up quickly with answers to that. Perhaps Mr. Wolf who has been close to this work might quickly come to an answer.

I don't think generally that we have anything except perhaps—well, the safety car did speak to the question of the steering post as being a very principal problem in accidents. We proposed a solution in autopilot type handles on either side which could be acceptable with the power steered automobile which would have eliminated the steering column. We proposed padding in front of the driver which might restrain him under accident conditions.

That was not directly accepted by the auto designers but I think the emphasis placed on the steering column had some influence on thinking.

Mr. Moss. Don't you think we have to somehow accelerate the adoption of these devices or the correction of readily apparent defects in design and engineering?

Mr. Ross. I completely agree with that. To one who has been climbing up this sand hill for 20 years it is encouraging that there is so much support for trying to do something about this at the present time.

Mr. Moss. At the present time but it has been very long in coming, has it not?

Mr. Ross. If you had worked as hard in selling research as we had you would say that with even more feeling. On the other hand I don't really criticize the lack of performance in the past. I am much more concerned with what we are doing now.

Mr. Moss. You say here in your statement on page 2 that—

In relation to the establishment of vehicle standards as proposed by several of the bills before this committee, research should prove highly productive. Whereas valid standards are highly desirable, our laboratory asserts that there is not today a sufficient knowledge of the complex interrelationships among driver, vehicles and highway to warrant broad conclusions and specifications for vehicle performance standards as well as of operation regulations or of driver training methods.

We can at least have standards we will say, on a braking system can we not?

Mr. Ross. Yes, I would not consider that a broad specification.

Mr. Moss. At this late date and with very sophisticated technology we should have a brake that operates quickly, should we not?

Mr. Ross. Yes, I think we do, as a matter of fact.

Mr. Moss. Pretty generally on this?

Mr. Ross. I think substantial improvements have been made.

Mr. Moss. I have had the experience in running through a puddle of water in a rainstorm. I find I have to burn the brakes in with my foot on the pedal until my foot gets down to the floor before I get the braking impact. On one of my cars I have disc brakes and they work fine.

Mr. Ross. Mine do work fine but they do have faults to some degree.

Mr. Moss. There are certain things clearly evident that are not part of the production of automobiles that should be.

Mr. Ross. That is correct. I think together the inquiry of this body and the work that is being done is bringing the public to a position of demanding these things. I think that is highly necessary to the merchandising process.

Mr. Moss. Must we always wait until the public demands when we are in the field of safety?

Mr. Ross. No. I don't think we should in the field of safety. One must also recognize that this is a broad economic problem of the distribution of a product that people then have to buy.

Mr. Moss. Is it going to be disruptive of the economics of the automobile industry to produce safe vehicles provided the deliveries are in a safe environment in which to drive?

Mr. Ross. No. I think we can produce safer vehicles. One must always qualify that there is a limit to what one can do. I think also the thrust of our remarks is that we must certainly do something about the training of the driver which has not yet been thoroughly understood. We must certainly do something about the highway, itself.

Mr. Moss. That is complex, the training of the driver.

Mr. Ross. Yes.

Mr. Moss. I am a parent. I have two teenage daughters.

I am much concerned that when they drive they drive carefully. Yet through the media that comes into your home every day where is the emphasis?

This is part of the driver training too of the driver. The industry itself, where does it place the emphasis? And have you seen any conscious effort in the promotion or sale of safety?

Mr. Ross. I feel that driver training goes beyond the practices of the kind of which you speak. I think a greater knowledge of the actual handling quality of the automobile—we don't know, yet, enough about how to handle the automobile to teach the skill of driving let alone the judgment of driving.

It is to that area we have to direct research. We have to know enough to teach good driving. We have to know enough about the handling process to improve the interrelationship between the driver and the automobile which we have had to do in airplanes and we will have to do in any man-machine relationship.

Mr. Moss. This is all part of an on-going program which should continue with increased emphasis.

Mr. Ross. Yes.

Mr. Moss. Development of the engineering and highways, these are more complex and require a much longer effort. But the automobile can be dealt with now.

Mr. Ross. I submit an interesting point that the highway itself, the highway barrier, for example, the crash barrier on the side of a highway, we have done extensive work there. We have shown that you can build a barrier that will hold the disintegrated automobile on the road.

We have shown that you can build one that won't damage the automobile but will leave it in a ditch. We have shown that you can build one which will restrain the car and bring it to a conservative stop.



These results are well known. Yet there is no rush of public bodies, of highway commissions and so on, to improve their performance in this respect.

I think we must share the blame with public bodies and private bodies.

Mr. Moss. In my State the State commissioner of highways in California has done some independent research in this field.

He has, I think, come up with some rather significant developments in barriers particularly on the dividing highways.

Mr. Ross. Yes.

Mr. Moss. I think that it needs the best effort and energies of all of us. We devote far too little of our total competence where we must devote more. We know that there are some priorities. Some things you can achieve today and some you have to look forward to tomorrow.

Mr. Ross. I agree with that. I would like to make the point, the point has been made several times as I heard testimony that great stress is being put on failure of the car as the cause of accidents and it is my impression completely that the failure of the drivers is a more common cause.

Mr. Moss. Let me say as a member of the committee, listening to quite a bit of testimony, that has not been what I have heard here from the testimony. I have concluded that there has been, in almost every statement, a stipulation that the driver causes accidents, and that we are talking primarily here of that second collision inside the car after the accident has occurred.

In other words, the problem of diminishing the loss as a result of the accident which occurred because the driver failed.

Certainly, I think anyone will concede that if you could take the human being out of all automobiles there would be no accidents. If you put them in there, you will have accidents. Whatever you do in engineering you will have accidents. We have a responsibility to fight a savings in the most foolish amongst us, don't we?

That is where the emphasis has been in the testimony that I have heard here as a member of the committee.

Mr. Ross. I have heard statements that go beyond that, which attribute too many accidents to the failure of the automobile as the cause of the accident.

Mr. Moss. You must agree that the callbacks that have taken place in the last few weeks tend to somewhat disturb the driver of an automobile. He does question whether his vehicle is as safe as it might be, whether there has been sufficient prudence on the part of those who assemble the automobiles, and so forth. I know you can't mass produce anything but what you are going to have mistakes and you are going to have failures.

But when it is repeated in many, many cases in the course of a production run, and where in my case then this took 15 months for me to learn of a defect in design, or in alteration, and only now after 15 months it has been corrected, this causes considerable concern.

That has come from the testimony before this committee.

Mr. Ross. I take it that you and I agree that there is no evidence that says the failure of the car is the most common cause of the primary accident.

Mr. Moss. No one that I have heard before this committee has so alleged.

Mr. Ross. I felt that there was some misapprehension in other testimony I have heard.

Mr. Moss. Thank you.

Mr. FRIEDEL. Mr. Younger.

Mr. YOUNGER. Thank you.

Did you say it was impossible to get statistics on accidents because of the reluctance of the manufacturers to say whether some part of the car caused failure?

Did I understand you correctly?

Mr. Ross. No. Let me make this clear that so far as I know there has been very little research done on the primary cause of an accident. The work that the Cornell Medical College people have done and that we have done has to do with the producer of the secondary accident.

The work is just beginning to try to find out something about the primary cause of the accident, itself. In this area, determining an accident's primary cause, the analysis is very difficult. One must get the fullest and frankest information from the person involved in driving the car. I illustrated with an example.

I say it is very difficult to get that kind of information unless you can so assure him that whatever he says to you is going to be used only for research and is not a part of the investigative process from the criminal or civil points of view.

Mr. YOUNGER. The only real statistics we have had came from a gentleman from Maryland when he gave us the statistics of the accidents resulting from tire failure, the previous witness. Do you think those statistics are reliable?

Mr. Ross. Those statistics are probably reliable. Physical failure of the automobile can sometimes be established as a matter of fact. Then again it sometimes takes very expert investigation. The most common cause of accidents is driver failure in some respects or another.

Mr. YOUNGER. I am not interested in that.

Mr. Ross. I am, and that was the thrust of my statement.

Mr. YOUNGER. Before you start in to give a group of standards, or prepare standards for construction of an automobile, you ought to know something about what causes accidents, what part of the automobile causes the accidents, if there is a failure. So far we have no information at all on that other than the one set of statistics given on tires.

I think GSA gave us the best statistics on the standards, but they have no statistics as to whether or not those standards when they are applied to the 1966 car are going to cut down accidents or prevent injuries.

They do not know.

Mr. Ross. I think that even here it is very difficult to determine—although, if a tire blows that is pretty positive sort of a thing. That is not too hard to fix, although it is a surprising thing that in many accidents you are not able to determine whether the tire blew as part of the accident or before the accident.

This would be the sort of thing that one would seek. Again, it is difficult from the mechanical condition of a wreck to determine what



failed, and yet if you get truly objective statements from the drivers you can sometimes lead yourselves to valid information. It is this sort of thing where I believe even then in the physical failure of the automobile you may have difficulty getting truly objective testimony from someone who knows that data may be used against him at a later date.

Mr. YOUNGER. Was the prototype you referred to the same one that was referred to by the Senator from New York?

Mr. ROSS. I don't know.

Mr. YOUNGER. Do you have a different prototype automobile that you have constructed other than the one that the State of New York is building?

Mr. ROSS. The State of New York is building one, I believe. Is that the reference you made?

Mr. YOUNGER. Yes.

Mr. ROSS. No, ours was a different one. Ours was simply an embodiment in a mockup of a number of safety features we had developed. Liberty Mutual joined with us in making that.

Mr. YOUNGER. Thank you very much.

Mr. FRIEDEL. Mr. Satterfield?

Mr. SATTERFIELD. No questions.

Mr. FRIEDEL. Mr. Farnsley.

Mr. FARNSLEY. Here is some information I want you to have concerning lighting.

What year did you start your institute?

Mr. ROSS. The Cornell Aeronautical Laboratory was started about 20 years ago and the research in automotive work had various starts throughout those years. The crash injury research, which is the subject of a considerable amount of data, was started by Cornell Medical School in 1952, as I recall, initially as a joint thing in looking at crash survivability of airplane and automotive accidents.

It was divided into two parts, the airplane and the automotive, and at a later date, perhaps 6 or 7 years ago, the laboratory took over the functioning in that area. In the meantime, we have been doing a wide range of automotive work over the 20 years.

Mr. FARNSLEY. What year was your car put out?

Mr. ROSS. The safety car would go back perhaps 12 years now, or something like that.

Mr. FARNSLEY. I have only known of you through popular magazines and the press, but I believe it gave encouragement to everyone who has been worrying about this problem.

These people are tired of hearing me say this but when I was mayor my closest friend, who has been chairman of Governor's safety committee on automotive medicine, the whole bit, he and I together think now—and we have been sending telegrams to manufacturers for years, registered letters, with return receipt requested—that the manufacturers are in a state of panic and will do what they can.

He thinks it is difficult to really go at this right now.

It seems to us that one big area is not stressed enough and a great deal of improvement has been made, in safety on the highway. What I have given you concerns highway lights, street lights, one-way highways and one-way streets. It seems to me the Government does not come in with clean hands in this thing.

I just think our highways and streets are incredibly dangerous, putting automobiles going in opposite directions on a two-lane road when it would cost comparatively little to build another road a mile or a half mile away.

Of course, with lighting you have tremendous gains. Have you done any work in lighting? You said you have worked on the barriers. Have you done work in this area?

Mr. ROSS. We have worked on barrier work. We are presently giving quite a bit of attention to configurations of roads. As you suggest, there is much to be done there. We must balance the optimum result for the expenditure that can be made.

Yes, I quite agree that we all come here with very poor conscience in this whole automotive field. I think it is rather too easy to point the finger to one or the other agency that should have done better.

Mr. FARNSLEY. Have you done any work on disk brakes?

Mr. ROSS. I don't think we at the laboratory have done any work on brakes, per se.

Mr. FARNSLEY. Are you driving a car with front-wheel disk brakes?

Mr. ROSS. Four wheel. I am very favorably impressed with the disk brakes.

Mr. FARNSLEY. General Motors takes a dim view, but some day they will discover them, I am sure.

Mr. ROSS. I am not here to mention trade names. I drive a Corvette.

Mr. FARNSLEY. No; I know that. You are doing a fine job.

Thank you.

Mr. FRIEDEL. I want to thank you very much, gentlemen, for your appearance today.

Our next witness is the Senator from Arizona, the Honorable Paul Fannin.

We have some witnesses here from Illinois and Texas with some from around Washington. Colonel Stapp and Mr. Creighton, can you come back tomorrow? We will have to hear from the people from out of State today?

You may proceed, Senator.

#### STATEMENT OF HON. PAUL FANNIN, A U.S. SENATOR FROM THE STATE OF ARIZONA

Senator FANNIN. Thank you, Mr. Chairman.

Your courtesy in extending to me the opportunity to appear today is most appreciated, because I know how crowded your hearing schedule is. I am aware that many witnesses want to be heard on various aspects of this legislation, so I will try not to impose unduly on your time and theirs.

As a former Governor who was involved with traffic safety problems at the State level for several years I share your interest in reducing the appalling toll of deaths, injuries, and property damage accidents on our highways. I am sure all of us agree that both the Federal Government and the respective State governments have legitimate roles to play in helping to bring about a significant reduction in the number of these tragic occurrences.

The tradition in our system has been one in which the Federal Government did those things that the States could not do independently



or as well collectively when a problem was clearly beyond the resources of a State, then Federal participation and assistance was indicated.

However, I share the concern of many authorities in the field of safety over what appears to be a growing preoccupation with the Federal role at the expense of overlooking or downgrading what the States can and have accomplished.

I most certainly do not agree with those who say that our State governments have not demonstrated a sufficient awareness or ability to cope with many aspects of the overall traffic safety problem. The purpose of my testimony today is to focus your attention on at least one major area where the States definitely are active.

I have a personal interest in and knowledge of this particular field because the developments now taking place as a result of collective State action had their origin during my service as Governor of Arizona.

I refer to the utilization by the States of the interstate compact approach to mount a more effective attack on accident fatalities and injuries. During my three terms as Governor, it was my privilege to serve as chairman of the western Governors' conference and also as chairman of the committee on roads and highway safety of the national Governors' conference.

These assignments afforded me the opportunity to gain some insight into the complexities of the vehicle safety problem, and the much greater problem of what can be done to improve human performance at the wheels of the millions of vehicles on our highways.

I want to take a few minutes to acquaint the committee with the background of the compact which led to creation of the Vehicle Equipment Safety Commission, an organization which unfortunately has been almost totally ignored in all of the current interest and debate in Congress. Far more than is generally known by the public has already been accomplished.

This Commission was formed under authority of the Beamer resolution, Public Law 85-684 of the 85th Congress. As you know, by this legislation Congress gave its advance consent to interstate compacts in the field of highway safety.

In effect, Congress at that time reaffirmed the sound principle that primary responsibility for traffic safety rests with the States and suggested the use of compacts to achieve more effective cooperation and progress.

Encouraged by this resolution, I joined with several of my western Governor colleagues in exploring how we could best take advantage of this new tool and put it to work in reducing accidents. In 1960, the western Governors' conference took the lead and requested the Council of State Governments to develop a workable compact for consideration.

Many other organizations interested in safety endorsed this approach. Our resolutions urged that interstate attention be concentrated first on two highway priority items: First, the obvious and compelling need to find better ways for prompt adoption of uniform yet workable standards for new and improved vehicle safety equipment;

and second, the need to protect the driving public from the unsafe drivers who are responsible for such a disproportionate number of accidents. The latter you are acquainted with, and I shall not devote any time to it because it does not relate specifically to the legislation at hand.

I want to emphasize, Mr. Chairman, how quickly the interest developed on the part of the States. Within a year, a compact had been drafted and was on its way toward the ratification by nearly all of the States. New York State was the first to adopt it in 1962.

As of today, 44 of the 50 States have adopted the compact, and it is expected that the remaining 6 States will follow by next year when their legislatures will meet. Let me explain more fully just what the compact does.

The compact sets up procedures and machinery for interstate cooperation in the formulation and adoption of equipment safety standards. The working body is the Vehicle Equipment Safety Commission, comprised of one member designated by each party State.

This Commission is empowered to recommend rules, regulations, or codes embodying performance requirements or restrictions for items of automotive equipment. Although it is limited by its bylaws to library-type research, the Commission does have authority to arrange for testing projects to be performed by qualified professional and technical groups.

It may also hold public hearings and consult with appropriate organizations in drafting its proposed regulations or codes. Adoption of performance standards developed by the VESC is encouraged by giving the member States alternative methods.

A State may affirm Commission proposals by legislative action or it may elect to leave the decision to the administrative authority of its motor vehicle department. Either way, all member States are obligated by the compact to consider VESC recommendations.

Since each State will have played a role in the development of these recommendations, a high degree of uniformity and acceptance is promoted. With ratification of the compact approaching the unanimous point, the VESC was able to get organized with commendable speed.

However, it should be pointed out that since its financial support comes from member State appropriations, it was not possible to assemble even a skeleton staff and budget until last year. Even so, I think the record of what the Commission has accomplished in such a short time is most encouraging and deserving of your serious consideration in our common desire to develop Federal legislation that will help rather than hinder future progress.

Many private and governmental agencies had already done much research and legal spadework to assist the Commission getting off to a quick start.

Mr. FRIEDEL. Senator, we have an automatic vote on a motion to recommit. Would you be able to come back at about a quarter to 6?

Senator FANNIN. Yes; I will be very pleased to. Would it be possible, Mr. Chairman, for me to do it tomorrow? I do have an engagement at 7 o'clock.

Mr. FRIEDEL. Yes. Your full statement will be included in the record, if you wish.

Senator FANNIN. I understand.



Mr. YOUNGER. Could you come back first thing in the morning, at 10 o'clock?

Senator FANNIN. Yes; that will be fine. I will submit my full statement at that time.

Mr. FRIEDEL. We are now going to go over and vote and then come back because we have people here from Nevada, Texas, and Illinois. We will be able to continue at that time.

The committee will stand in recess until 5:45.

(At 4:55 p.m. the committee recessed, to reconvene at 5:45 p.m.)

(Whereupon, the committee reconvened at 5:45 p.m.)

Mr. FRIEDEL (presiding). The committee will come to order.

We will now hear from Mr. Warren E. Rumsfield, chairman of the board of directors, of the National Professional Driver Education Association, Inc.; accompanied by Mr. H. B. Vinson, president, National Professional Driver Education Association, Inc., from Dallas, Tex.

**STATEMENT OF WARREN E. RUMSFIELD, CHAIRMAN, BOARD OF DIRECTORS, NATIONAL PROFESSIONAL DRIVER EDUCATION ASSOCIATION, INC., CHICAGO, ILL.; ACCOMPANIED BY H. B. VINSON, PRESIDENT, NATIONAL PROFESSIONAL DRIVER EDUCATION ASSOCIATION, INC., DALLAS, TEX.**

Mr. FRIEDEL. You may proceed.

Mr. VINSON. Mr. Chairman, my name is H. B. Vinson. I am president of the National Professional Driver Education Association. Joining me in this testimony is Mr. Warren E. Rumsfield, Chicago, Ill., chairman of our board of directors and founder of our association.

In our own behalf and in behalf of our association, we want to express our appreciation to the committee for this opportunity to appear. You are most kind in receiving us and we hope we may contribute in some way to the alleviation of our Nation's traffic safety problems through our testimony here and through the activities of our association.

Our association is the voice of the Nation's 2,300 driving schools in the United States, as well as the Province of Ontario, Canada. We have members in 42 States and although we are the only voice of the profession, we have in membership only the best and most qualified schools.

Rather than bore you with a lot of statistics regarding our profession, and out of respect for your valuable time, we have reproduced some data regarding our industry which is in our printed testimony and can be more quickly read than spoken. We also have included in the testimony a brochure which will give specific information concerning our association for those who might be interested.

We shall be delighted to answer any questions relative to our profession or our association. We are hopeful that this meets with your approval. We are here as teachers and we speak as teachers.

Many of you may not have heard of us before since our association is relatively new. We have, up until this point, devoted most of our

energy toward the internal improvement of the drivers training schools and have not been fortunate enough to come before nor get acquainted with national leaders such as yourselves.

We are here to present suggestions which, if adopted, we feel will contribute greatly to the improved conditions of our highways. We are cognizant of the fact that a little of this may not apply to H.R. 13448 as it now stands in its present form.

However, as a result of our observations, we feel there is some possibility that this bill may be amended and some of our thoughts might be included therein at that time. The Nation's driver training schools have been for 50 years the major source of driver training in America. We have taught more people to drive than do the high schools or any other group. We teach in the vicinity of 2 million persons a year, about 65 percent of whom are adults who find us to be their only available source of instruction.

About 30 or 35 percent of our customers are teenagers, many of whom previously have successfully completed the high school course of instruction. Some of our members also train truck drivers and drivers for fleet vehicles.

We are also called upon frequently to evaluate the driving capabilities of employees of large firms. At times we provide the behind-the-wheel phase of instruction for high schools. We are in agreement with those who feel that the automotive industry could do much more to produce safe vehicles.

We also have observed that the industry had a tendency to shift all of the responsibility of the traffic injuries to the driver. However, we must agree, nonetheless, that the driver does share in the responsibility for causing the accidents and do not believe that the accident problem will be solved if we simply make automobiles safer.

We must do both, build safer automobiles and train safer drivers in addition to our efforts to improve the engineering of highways and the enforcement of traffic laws. Just as no one thing or change can solve our traffic accident problem, so, too, no one group or organization can do the job by itself. Many hands are needed.

We are eager to work with the Secretary of Transportation in any way possible to help establish ways and means to put better and safer drivers upon the highways. We come in the spirit of cooperation and willingness to do this work rather than obstructionist to any other program.

I will now call upon Mr. Rumsfield to make his comments.

Thank you very much.

MR. FRIEDEL. You may proceed.

MR. RUMSFIELD. Congressman Friedel and gentlemen, the first concept we would like to pass on, and we realize time is limited, is that last week Senator Speno presented to this committee the thought that there should be Federal standards established for drivers' license testing.

We vehemently agree with this concept. We feel, in fact, that no real effort with regard to the driver can be productive or fruitful unless the loophole of weak drivers' license testing is plugged.

Today in all our States the drivers' license examinations are just plain silly. There is knowledge available which can make it possible



for us to do a much more effective job in screening and eliminating the unfit driver on the road. In fact, some of us are using this knowledge today.

The Harold Smith Institute, which has offices in Chicago, Los Angeles, and New York, charges a very substantial fee to industry to screen its experienced drivers, and to retrain those who need retraining.

We think that this available knowledge could be applied in the case of new drivers applying for a driver's license, and at a cost of perhaps no more than \$9 extra over and above what is being charged now for drivers' licenses.

The drivers' license road test should be meaningful and effective. We have included within our testimony a sample form which is used by some of the professional driver training schools in America to test and evaluate drivers. We thought you might be interested in seeing this. We hope that you will look over our comments as we have them in the printed testimony.

I have been abbreviating due to the shortage of time.

Mr. FRIEDEL. Your entire statement will be included in the record at the conclusion of your remarks.

Mr. RUMSFIELD. Thank you, Congressman. That will help very much.

We say that the driver training schools in America are today, and have been, the largest source of driver training in spite of the fact that many folks may not have heard much about us. We have been organized nationally only for a short time.

Last year in Massachusetts only 18,000 new drivers in the teenage bracket took advantage of the training offered at no charge through the high schools; 43,000 teenagers, in addition to thousands of adults, took advantage of the instruction offered through the professional driver training schools.

We feel that if this bill is enacted into law the Secretary of Transportation should bear in mind that the largest single source of driver training in America today, is the professional driver training schools.

It would seem rather shortsighted to establish firm standards and provide aid for the group which trains a few people to drive and to overlook the group which trains the lion's share of the new drivers today.

We hope that the legislation that is forthcoming from this committee will help us and help driver education to avoid repeating and magnifying the present mistakes that are being made in driver education.

It seems unwise to us that we should expand drivers' license testing when we are not doing a very good job in driver license testing, and it seems it would be unwise to expand driver training if we are not doing a very good job there.

We have been frustrated at times because the standards set for us at some colleges and universities are apparently not doing the job. No one has been able to produce valid statistics to show that our driver training programs, which are reaching many teenagers, actually are reducing accidents.

Indeed, occasionally some of us must hustle about to attempt to conceal or pooh-pooh statistics which come out and reveal that the stu-

dents are having more, not fewer accidents, after having enjoyed the courses of instruction.

Included as an example of how driver education is being frustrated and embarrassed are some excerpts from a study made by the California Department of Motor Vehicles last year. In this study it was learned that although the teenager who has had driver education, may have had slightly fewer traffic violations, he has had just as many or more accidents as those who have not had driver education. This is not to condemn driver education, but we do think that better courses can be established and a better approach can be developed.

Back in the mid-1930's, when there was lighter traffic and no high speed expressways, no freeways and interstate turnpikes and no 350 horsepower engines, an experimental course of instruction was developed which consisted of five times as much training in the classroom as behind the wheel of a car.

This course provided for 30 hours of class and 6 hours behind-the-wheel instruction for teenagers.

A hypothesis was also conceived regarding the need to build favorable attitudes in the minds of the students rather than the need to build safe driving habits and skills. The advocates of this hypothesis claimed that in building favorable attitudes toward safe driving the student would become not only a safe driver but also a better citizen and, indeed, a moral individual as well.

Since that time, 30 years ago, the basic course of instruction and the attitude building theory have been followed almost without change, although the traffic situation has changed greatly.

Under the attitude building philosophy, the student is not well trained to develop safe driving habits and skills, but, rather, an attempt is made in the classroom to instill in him favorable attitudes towards driving and his fellow man. Only a hasty and limited amount of behind-the-wheel instruction is offered.

This attitude building concept was supposed to be the answer to all our traffic safety problems, but it isn't working. At the 1961 session of the National Safety Congress in Chicago, Dr. Lillian Schwank, of the Driving Research Laboratory of Iowa State College, reported that although driver education can change a person's attitude, this change will last for only a few months and then he will revert back to the attitude he previously held.

And subsequent research has also demonstrated additional failure of this theory.

Mr. MACDONALD. If the gentleman will yield, I certainly congratulate you on the testimony that you have given and are about to give, but do you think that everybody's interest would be served if you just put into the record the statement you are reading?

Mr. RUMSFIELD. Fine. That would be fine, Congressman.

Mr. MACDONALD. Then we could have the next witness.

Mr. FRIEDEL. I wanted to ask a couple of questions first.

(The statement referred to follows:)



STATEMENT OF H. B. VINSON, PRESIDENT, AND WARREN E. RUMSFIELD, CHAIRMAN,  
BOARD OF DIRECTORS, NATIONAL PROFESSIONAL DRIVER EDUCATION ASSOCIATION, INC.

Mr. Chairman and Members of the Committee:

My name is H. B. Vinson. I am president of the NATIONAL PROFESSIONAL DRIVER EDUCATION ASSOCIATION. Joining me in this testimony is Mr. Warren E. Rumsfield of Chicago, Illinois, Chairman of the Board and founder of our association. Also accompanying me are a few other association officers.

In our own behalf, and in behalf of the NATIONAL PROFESSIONAL DRIVER EDUCATION ASSOCIATION, we want to express our appreciation to the committee for this opportunity to appear. You are most kind in receiving us, and we hope that we may contribute in some way to the alleviation of our nation's traffic safety problems through our testimony here and through the activities of our national association.

Our association is the voice of the nation's 2,300 driver training schools and of the driver training schools in the Province of Ontario, Canada. We have members in forty-two states, and, although we are the only voice of the profession, we have in membership only the best and most qualified schools. Rather than bore you with a lot of statistics regarding our profession and out of respect for your valuable time, we have reproduced some data relative to our industry which is in our printed testimony and can be more quickly read than spoken. We also have included in the testimony a brochure which will give specific information relative to our association for those who may be interested, and we shall be delighted to answer any questions relative to our profession or our association. We hope this meets with your approval.

We are teachers, and we speak as teachers. Many of you may not have heard of us before since our association is relatively new and we have, up to this point, devoted most of our energy toward the internal improvement of our driver training schools and have not been fortunate enough to become acquainted with many national leaders such as you.

DATA REGARDING THE PROFESSIONAL  
DRIVER TRAINING SCHOOLS IN AMERICA

The number of professional driving schools in the United States is estimated at 2,300.

It is estimated that there are 9,000 to 12,000 instructors and driver training cars.

We estimate that the professional driver training schools teach 1,800,000 to 2,500,000 persons per year.

About 70% of our students are adults, most of whom find that the professional driver training school is the only source of instruction available to them in the community.

About 30% of our customers are teenagers, many of whom have successfully completed a high school course of driving instruction.

A few driving schools can teach more than 15,000 or 20,000 people a year and have 50 to 70 cars and instructors.

Some schools can teach 8,000 to 15,000 persons a year. Many can accommodate over 5,000 a year. Most, however, teach fewer than 5,000 a year, and many teach less than 1,000 a year. Hundreds of schools are growing in size RAPIDLY. A few do a gross volume of business of almost \$1,000,000 a year.

At this time, the number of states which have some laws or regulations governing professional driving schools is 22. The only cities which regulate driving schools are Atlanta, Ga.; Kansas City, Mo., and Minneapolis, Minn. None of the city regulations are very effective or worthwhile. The schools instructing teenagers in Massachusetts also are fairly well regulated. In many states, such as Connecticut, New York, Pennsylvania and Ohio, the control of driver training schools is highly inadequate.

Although the professional driving schools probably teach more people to drive than do the high schools, in one state (Mass.) we have statistics released by the Motor Vehicle officials which indicate that the number of teenagers alone who attended professional driving schools far outnumbered the teenagers taught by high schools. In 1963, in Massachusetts, about 43,000 teenagers elected to pay for driving instruction at professional driving schools; only 18,000 elected to accept the lessons at no charge through their high schools.

Most professional driving schools do not use driving simulators. They feel there are advantages to using actual automobiles rather than a simulator as a substitute and can see little educational merit in employing simulators. However, there are a few professional driving schools using simulators in Oregon, Pennsylvania and Canada.

The professional driving school industry has its own textbook: "The New Driver's Guide", written by Dr. James Aaron and Dr. Marland Strasser. Other items under development at this time include programmed learning machines and programs, teacher training manuals and related items, driver training car accessories, visual aid equipment, etc. Business management and teaching methods seminars are held frequently for school owners and managers.

All driver training cars have dual control pedals (brakes, clutches, etc.); a few continue to use dual steering wheels in addition to the pedals. Most driver training cars have automatic shift transmissions; however, about 10% to 15% of the cars are standard shift in most areas.

Estimates of number of instructors and cars are based upon figures provided by state departments which regulate and license driver training schools, in addition to surveys taken within the industry.



We are here to present suggestions which, if adopted, we feel will contribute greatly to the improved conditions on our highways. We are cognizant of the fact that a little of this may not apply directly to H. R. 13348 as it now stands in its present form; however, as a result of our observations, we feel there is some possibility that this bill may be amended and some of our thoughts might be included therein at that time.

The nation's driver training schools have been for fifty years the major source of driver training in America. We have taught more people to drive than do the high schools or any other group. We teach in the vicinity of two million persons a year, about sixty-five or seventy per cent of whom are adults who find us to be their only available source of instruction. About thirty or thirty-five per cent of our customers are teenagers, many of whom previously have successfully completed a high school course of instruction. Some of our members also train truck drivers and drivers of fleet vehicles. We also are called upon frequently to evaluate the driving capabilities of employees of large firms. At times, we provide the behind-the-wheel phase of instruction for high schools.

We are in agreement with those who feel that the automotive industry could do much more to produce safe vehicles. We also have observed that industry has a tendency to shift all the responsibility for traffic injuries to the driver. However, we must agree, nonetheless, that the driver does share in the responsibility for causing accidents and do not believe that our accident problem will be solved if we simply make automobiles safer. We must do both: Build safer automobiles and train safer drivers—in addition to our efforts to improve the engineering of highways and the enforcement of traffic laws. And just as no one thing or change can solve our traffic accident problems, so too, no one group or organization can do the job by itself; many hands are needed.

I would now like to call upon Mr. Warren E. Rumsfield for his comments.

DRIVER'S LICENSE EXAMINATIONS

We all enjoyed very much Senator Spino's presentation to this committee last week. It is very hard to keep from admiring this man and his work. One of the topics he dwelled on briefly was the need for improved driver's license examinations and the establishment of national minimum standards for driver's license examinations. We also noticed that a few other persons who testified on traffic safety seemed concerned about this. We should like to add that we feel that no effort to reduce traffic accidents can be truly successful if we make the mistake of allowing driver's licenses to be as easy to obtain as they are currently in all states.

Some people seem to feel that the automotive industry is simply interested in selling its products and wants to see as many drivers licensed as possible, so as to have a maximum potential market from which to draw customers. This thesis becomes somewhat easy to accept from the professional teacher's point of view because he observes industry doing all it can to encourage the hasty and often inadequate training of new drivers on the one hand, and almost ignoring the need for realistic testing standards for driver licensing on the other.

Furthermore, the professional teachers of driving are fully aware of the fact that the minimum age for a driver's license in all states is far too low. No one should be allowed to drive under any circumstances before he has reached his 18th birthday, but in some of our states it is possible to get a driver's license as early as the age of 14. Some European countries have already recognized that driving a powerful vehicle implies maturity, prudence and judgment which simply does not exist in most 15, 16 and 17-year-old children. We cannot imagine what goes through the minds of some people in traffic safety as they repeatedly ignore the terrible and obvious mistake of allowing children to drive before they are even close to being mature enough to accept



the responsibility. Once again, some critics of our automobile industries think that someone is interested in seeing a maximum number of driver's licenses issued to youngsters who can quickly become customers for a used car and, at an early age, customers for a new car. We might bear in mind that, in many communities, most parents vehemently agree that the ages of 14, 15, 16 or 17 for a driver's license is far too young. They would rather see their children wait until at least age 18, and, even at age 18 or 19, the person should be given only a probationary license up to age 21. Federal minimum standards regarding the age for a driver's license might be worth considering.

Today, in all our states, the driving examination for a driver's license is just plain silly. The best examinations are given in states such as Washington, Ohio, Florida and the District of Columbia, wherein the examination of new drivers is the duty of the professionally qualified, uniformed, highway patrolmen. But even these examinations only check on the person's ability to perform a few simple, basic maneuvers and never really test his or her ability to drive safely in traffic and under all conditions. Your ability to stop, start, turn and park is not an indication of your ability to drive SAFELY.

#### SCREEN UNSAFE DRIVERS FOR \$5.00 EACH

And yet, the knowledge is available to adequately test drivers to surely ascertain their ability to drive safely under almost all conditions. This could be done in each state at an additional cost of perhaps no more than \$5.00 per person.

We know this knowledge is available because we driver training schools frequently are called upon by firms and corporations which operate a number of vehicles to evaluate their drivers and to separate those who, even though they can start, stop, turn and park very well, nonetheless are likely to become involved in accidents.

We are able to do this very profitably for a fee of between ten and twenty dollars.

Indeed, there is one firm called the "Harold L. Smith Driver Improvement Institute" which has offices in Los Angeles, Chicago and New York and which primarily makes its living by evaluating experienced and otherwise qualified drivers and re-training those who require it--and some professional driver training schools perform this service, as well. Private industry knows what it is doing when it employs the services of these firms in order to reduce its vehicle accidents and its insurance premiums. It is time that someone took a look at what some of our largest fleet operators are doing about accidents. Some of the techniques employed by the Smith Institute and professional driver training schools could be employed by the driver's license examiners with each new driver they process. (See exhibits A and B for sample.)

We have included within the printed testimony a sample form sold by an Illinois firm which some of our members follow and use in the evaluation of those drivers who already have demonstrated that they can do the same simple, basic skills which are checked on the average driver's license road test. And there are other procedures and techniques which can be followed.

In almost every state, the driver's license examiners are known as the "Orphans of Traffic Safety". They generally are underpaid and understaffed. In most cases, they are either almost untrained or have received a cursory training course to hastily familiarize them with the requirements of the job. In many states, the examiners hold their jobs by virtue of political patronage appointment. In almost no cases are these men as well paid or as well prepared to do their work as are the driver training instructors employed by our better schools.

#### CLOSE THE LOOPHOLE

Those of us who have been in military training know that if you can catch the enemy in a defile through which he must pass, you are indeed in a fortunate military



SAFE DRIVER PERFORMANCE EVALUATION

	S	O	U	M	A	S	R	N	
1. SAFE SPACING	a. Centers in traffic lane								
	b. Uses right-hand lane when safe								
	c. Avoids curb lane in light traffic when faced with								
	d. Keeps in basoon on the right								
	e. Maintains adequate stopping space								
2. TURNS AND CURVES	a. When possible, provides ample space between his car and vehicle behind him								
	b. Avoids driving alongside or in "blind spot" of other driver longer than necessary								
	c. Allows adequate space in relation to parked vehicles								
	d. Adjusts speed when situation prevents safe spacing								
	e. Realizes need for turn well in advance								
3. SIGNALS INTENTIONS	a. Signals well in advance for turns								
	b. Signals well in advance before changing lanes								
	c. Checks rear to be sure signal is responded to when stopping, turning and changing lanes								
	d. Checks blind spot before changing lanes								
	e. Approaches intersections aware of possible cross basoon								
4. SAFE SPEED	a. Is aware in advance of approaching cars which may cross his lane and those which may turn left across his path								
	b. Drives at safe speed consistent with conditions when driving straight, turning and backing								
	c. Checks rear to be sure signal is responded to when stopping, turning and changing lanes								
	d. Checks blind spot before changing lanes								
	e. Approaches intersections aware of possible cross basoon								
5. SEES DELAYS	a. Realizes need for stop well in advance — applies brake early								
	b. Is aware of traffic problems in time to avoid delay by changing lanes when possible								
	c. Is aware of problems facing others, anticipates								
	d. Times traffic lights well — does not need hard stop when green light changes								
	e. Checks rear immediately when he anticipates delay ahead								
6. SIDES AND REAR	a. Checks sides before starting forward on green light								
	b. When stopped and side view is limited by vehicle alongside, jots that vehicle before moving								
	c. Checks left and right when approaching railroad crossings								
	d. Is continuously aware of conditions to the rear								
	e. Before leaving parking space, looks back to the sides and rear — leaves this traffic lane when safe								
7. PROBLEMS AND HAZARDS	a. When dependent on others to avoid a potentially hazardous situation, backs well in advance — could stop if necessary								
	b. When unsure of intentions of others, adjusts speed, changes lane or sounds horn — does all three if necessary								
	c. Gives frequent glance well ahead when turning corners and curves								
	d. Signals well in advance for turns								
	e. Signals well in advance before changing lanes								
8. PASSING AND POSITIONING	a. Checks rear to be sure signal is responded to when stopping, turning and changing lanes								
	b. Moves truck to the rear when other driver will see him when passing vehicle ahead								
	c. Checks blind spot before changing lanes								
	d. Approaches intersections aware of possible cross basoon								
	e. Is aware in advance of approaching cars which may cross his lane and those which may turn left across his path								
9. SAFE BACKING	a. Checks rear to be sure signal is responded to when stopping, turning and changing lanes								
	b. Moves truck to the rear when other driver will see him when passing vehicle ahead								
	c. Checks blind spot before changing lanes								
	d. Approaches intersections aware of possible cross basoon								
	e. Is aware in advance of approaching cars which may cross his lane and those which may turn left across his path								
10. AVOIDS DISTRACTIONS	a. Gives required attention to driving — does not permit himself to be inattentive to the driving task								
	b. Moves truck to the rear when other driver will see him when passing vehicle ahead								
	c. Checks blind spot before changing lanes								
	d. Approaches intersections aware of possible cross basoon								
	e. Is aware in advance of approaching cars which may cross his lane and those which may turn left across his path								

NOTE: Some situations may have failed to occur during this short evaluation; therefore, if the evaluator was unable to make an accurate judgement, that action or response has been left blank.

SEE ADDITIONAL COMMENTS ON BACK PAGE.

(EXHIBIT A)

## Safe Driver Performance Evaluation

ADDITIONAL COMMENTS:

Now that you have been evaluated — you should immediately study the evaluation carefully, give special attention to your shortcomings, and continuously practice for improvement until you have built these safe habits.

REMEMBER — to reduce greatly your risk of collisions, you must "always" act and respond as prescribed in this evaluation!

Safe driving requires correct decisions. Correct, safe decisions are made possible only by continuous awareness of the overall traffic situation.

This evaluation is designed to show the driver those actions and responses which he does consistently well. It is also designed to show the driver those actions and responses which he does not do frequently enough, or seriously omits . . . and therefore increases greatly the danger of his becoming involved in accidents!

Driver \_\_\_\_\_

Date \_\_\_\_\_ Evaluator \_\_\_\_\_

(EXHIBIT B)



situation. Every new driver must pass the present, crude, driving performance tests in order to receive a license. Even the newest of our teacher-employees soon comes to realize that if the driver's license road test were made into an adequate screening process for unqualified drivers, it would be the biggest single contribution to traffic safety that we could make with regard to the drivers. Those of us in the field of driver training realize that, insofar as the driver is concerned, no real, meaningful, or significant improvements can be made if this obvious and glaring loophole is not closed.

We have heard considerable discussion about re-testing drivers.-- Re-testing for what? -- Re-testing with what? -- The same old, grossly inadequate, comic-opera type, driver's license examinations?

We believe this committee has it within its power to make a second great contribution to traffic safety: Helping to establish sensible driver's license road test standards for the drivers who are on the road today.--standards which are greatly in excess of those which presently exist. The establishment of these standards has been left to the states for lo, these many years, and the states have not met their responsibilities in this matter. Furthermore, there is no evidence on the horizon to indicate that they are likely to do so within the next generation. Meanwhile, they are licensing incompetent drivers to kill. It seems to us that when a needless accident occurs, much of the responsibility falls upon the agency which gave the driver a license to drive. We support high minimum standards for driver licensing for the sake of humanity.

DRIVER TRAINING SCHOOLSAND H. R. 13348

We urge that this committee consider some action with regard to H. R. 13348 which will provide that the Secretary of Transportation will be interested in the nation's largest, single source of driver training--the professional driver training schools. We think it is necessary that some effort be made to establish uniform, minimum standards for driver training schools, based upon the sample bill which is included with our testimony.

Furthermore, we hope that H. R. 13348 will require that states treat and deal with the qualified driver training schools in the same manner as they deal with any other driver training institutions.

LARGEST SOURCE OF DRIVER TRAINING

The states, the Secretary of Transportation, and this committee should bear in mind that the nation's largest, single source of driver training is probably the professional driver training schools. Last year, in Massachusetts, only 18,000 new drivers in the teenage bracket were trained outside of driver training schools. 43,000 teenagers and nearly all the adults who received formal instruction received it through professional driver training schools. If we are going to improve the standards of instruction, it would seem foolish to establish firm standards and provide aid for the group which trains a few of the people to drive and to overlook the group which trains the lion's share of the new drivers in some of our states.



AVOID REPEATING AND  
MAGNIFYING PRESENT MISTAKES

In the realm of driver training, just as in the realm of driver licensing, it seems unwise to expand and attempt to reach more people with programs which are not working very well among those who presently are being reached. You can give more re-examinations of drivers, but to what avail if the examination itself is almost worthless? You can increase the number of drivers who are reached by a driver training program, but to what avail if the program itself is doing no good? It is better, therefore, it seems to us, to improve the quality of what we are doing before we attempt to increase production.

We in the driver education field are frustrated at times because the standards and philosophies which have been set for us at some colleges and universities apparently are not doing the job. No one has been able to produce valid statistics to show that our driver training programs, which are reaching many teenagers, actually are reducing accidents. Indeed, occasionally some of us must hustle about to attempt to conceal or poo-poo statistics which come out and reveal that the students are having more, not fewer, accidents after having enjoyed the courses of instruction.

Included as an example of how driver education is being frustrated and embarrassed are some excerpts from a study made by the California Department of Motor Vehicles last year. In this study, it was learned that, although the teenager who has had driver education may have slightly fewer traffic violations, he has just as many or more accidents as those who have not had driver education. This is not to condemn driver education, but we do think that better courses can be established and a better approach and philosophies can be developed.<sup>1</sup>

<sup>1</sup> Other studies which also indicated that our present approach to driver training may be in error have been published by the Texas State Insurance Board; by Dr. Clyde Slocum of New Jersey; by the American Legion Magazine; etc.

## ATTITUDE-BUILDING HAS NOT WORKED

Back in the mid-thirties, when there was lighter traffic and no high-speed expressways, no freeways and interstate turnpikes, and no 350-horsepower engines, an experimental course of instruction was developed which consisted of five times as much training in the classroom as behind the wheel of the car. This course provided for thirty hours in class and six hours of behind-the-wheel instruction for teenagers. A hypothesis also was conceived regarding the need to build favorable attitudes in the minds of the students rather than the need to build safe driving habits and skills. The advocates of this hypothesis claimed that in building favorable attitudes toward safe driving, the student would become not only a safe driver but also a better citizen and indeed a moral individual, as well. Since that time, thirty years ago, the basic course of instruction and the attitude-building theory have been followed with almost no change, although the traffic situation has changed greatly. Under the attitude-building philosophy, the student is not well trained to develop safe driving habits and skills, but rather, an attempt is made in the classroom to instill in him favorable attitudes toward driving and his fellow man. Only a hasty and limited amount of behind-the-wheel instruction is offered. This attitude-building concept was supposed to be the answer to all traffic safety problems. But it isn't working. At the 1961 session of the National Safety Congress in Chicago, Dr. Lillian Schwank of the Driving Research Laboratory of Iowa State College reported that, although driver education can change a person's attitude, this change will last for only three or four months, and then he will revert back to the attitude he had previously held. Subsequent research and observations have demonstrated additional failure of this theory. But meanwhile, rather than attempt to improve the philosophies and objectives of our driver training efforts, everyone simply wants to expand the program as it presently stands so that the mistake can be repeated with even more millions of new drivers.



We are frustrated because, except for our national association, the only places where we can go for additional knowledge in the field of driver education is to the colleges and universities. There, the attitude-building concept still is being expounded and preached, in spite of the fact that many of us know that it is outmoded, ineffective, and simply wrong.

NO ONE HAS BEEN ABLE TO PROVE WHAT IS THE "RIGHT" ATTITUDE AND THAT PEOPLE WITH THE RIGHT ATTITUDE DO NOT HAVE ACCIDENTS. INSOFAR AS WE KNOW, A GOOD MAN HAS AS MANY ACCIDENTS AS A BAD MAN.

#### BUILD SAFE DRIVING HABITS AND SKILLS

Industry has learned that you must diligently train an employee to build safe habits and perhaps in his training he also will develop some favorable attitudes. Once again, corporations such as United Parcel, A.T.&T., Greyhound, Trailways Bus System, McLean Trucking Company, Brooklyn Union Gas, Mobil Oil Company, many utilities, etc., who are vitally concerned about their accident record and insurance premiums, employ the Harold L. Smith Institute to evaluate and re-train their drivers. This institute charges a very substantial fee and does an outstanding job. One may be certain that industry would not continue to spend its money with this organization unless it was producing measurable results insofar as reduced accidents and reduced insurance premiums are concerned. They train the driver to build safe driving habits and skills, and they do not concentrate upon building safe driving attitudes. But apparently, even in the face of the outstanding and demonstrated

success of the "SAFE DRIVING HABIT" approach, it does not satisfy the experts directing our driver education efforts. These people still cling to the attitude-building theory in spite of the fact that it has collapsed beneath them.

We hope that federal legislation is not going to open the door to an expansion of the mistakes we already are making in the realm of driver education. The federal government should take a look at the people who are successfully creating safe drivers commercially and who must continue to do so or go out of business. Driver education has repeated the same mistakes for too many years and apparently is not capable of getting out of the rut by itself. Let us hope that the federal government will help driver education set itself on a new and better road which can lead to more success in the future.

Insofar as the driver is concerned, the traffic safety movement has been spinning its wheels for decades. It doesn't look as if anything except federal legislation can get it moving in the right direction.

We need high minimum federal standards for driver's license testing.

We need a realistic minimum age of 18 for all new drivers.

We need probationary driver's licenses up to age 21.

We need minimum standards for driver training schools in all the states.

We need help in overcoming the inertia which has carried the driver education movement along in the wrong direction with regard to the types of courses, the objectives and the philosophies in the driver education movement.

The motor vehicle needs to be made more safe; of this we are certain. But proper licensing and driver training also can make a tremendous contribution to traffic safety if someone will but help get the movement out of the ruts of the last thirty years.



The present trend seems to be to load our highways with fancy, souped-up, sports cars, poorly-trained drivers, and almost meaningless driver's licenses. The nation must make up its mind if the highways are to be used as a sports arena or as a system of transportation.

In behalf of the professional driver training school industry, we thank you for hearing us. Call upon us to serve you in any way.

OFFICERS OF THE  
NATIONAL PROFESSIONAL DRIVER EDUCATION ASSOCIATION, INC.

Mr. H. B. Vinson, President  
1625 N. Industrial Blvd.  
Dallas, Texas 75207  
Area 214: RI 2-1248

Mr. Thomas Cheney, Secretary  
6021 York Blvd.  
Los Angeles, Calif. 90042  
Area 213: 254-2266

Mr. Samuel E. Atkins, Vice Pres.  
1 Farmingdale Road  
West Babylon, New York  
Area 516: 669-2940

Mr. Richard R. Redinger, Treas.  
3506 Connecticut Ave., N.W.  
Washington, D. C. 20008  
Area 202: 244-8400

Mr. Warren E. Rumsfield  
Chairman, Board of Directors  
4935 W. Foster Avenue  
Chicago, Illinois 60630  
Area: 312: 777-9600

the first part of the paper, the author discusses the importance of the study of the history of the Dutch East India Company (VOC) in the context of the Dutch colonial empire.

In the second part, the author discusses the role of the VOC in the development of the Dutch colonial empire, and the impact of the VOC on the Dutch economy and society.

In the third part, the author discusses the role of the VOC in the development of the Dutch colonial empire, and the impact of the VOC on the Dutch economy and society.

In the fourth part, the author discusses the role of the VOC in the development of the Dutch colonial empire, and the impact of the VOC on the Dutch economy and society.

In the fifth part, the author discusses the role of the VOC in the development of the Dutch colonial empire, and the impact of the VOC on the Dutch economy and society.

In the sixth part, the author discusses the role of the VOC in the development of the Dutch colonial empire, and the impact of the VOC on the Dutch economy and society.

In the seventh part, the author discusses the role of the VOC in the development of the Dutch colonial empire, and the impact of the VOC on the Dutch economy and society.

In the eighth part, the author discusses the role of the VOC in the development of the Dutch colonial empire, and the impact of the VOC on the Dutch economy and society.

In the ninth part, the author discusses the role of the VOC in the development of the Dutch colonial empire, and the impact of the VOC on the Dutch economy and society.

In the tenth part, the author discusses the role of the VOC in the development of the Dutch colonial empire, and the impact of the VOC on the Dutch economy and society.

In the eleventh part, the author discusses the role of the VOC in the development of the Dutch colonial empire, and the impact of the VOC on the Dutch economy and society.

In the twelfth part, the author discusses the role of the VOC in the development of the Dutch colonial empire, and the impact of the VOC on the Dutch economy and society.

In the thirteenth part, the author discusses the role of the VOC in the development of the Dutch colonial empire, and the impact of the VOC on the Dutch economy and society.

In the fourteenth part, the author discusses the role of the VOC in the development of the Dutch colonial empire, and the impact of the VOC on the Dutch economy and society.

In the fifteenth part, the author discusses the role of the VOC in the development of the Dutch colonial empire, and the impact of the VOC on the Dutch economy and society.



STATE OF CALIFORNIA  
DEPARTMENT OF MOTOR VEHICLES  
DIVISION OF ADMINISTRATION  
John L. McLaughlin, Chief

## **THE TEEN-AGED DRIVER**

**An Evaluation of Age, Maturity,  
Driving Exposure and Driver Training  
As They Relate To Driving Record**

by

**R. S. Coppin, G. S. Ferdun and R. C. Peck**

**FEBRUARY 1965**

*Excerpts From....*

**"THE TEEN-AGED DRIVER"**

*February, 1965; California*

*Department of Motor Vehicles*

### The Influence of Driver Training On Accident and Violation Rates

In this section, an attempt will be made to answer two basic questions:

- (1) Do drivers who have taken behind-the-wheel driver training have significantly better subsequent driving records than those who have not taken such training?
- (2) To what extent can subsequent driver record differences be attributed to the effects of driver training?

The task of evaluating the effects of driver training on accident and violation rates is a difficult one. To adequately determine the effect of this type of instruction on subsequent driving behavior, it would be necessary to use a random assignment technique-randomly assigning subjects to a driver training course and a control group for later comparison. To our knowledge, no such controlled experimentation has been done. Instead, comparisons have been made between the driver records of subjects who have volunteered to take driver training classes with those who have not. It has been shown that, in general, individuals who are "volunteers" have different characteristics than those who are not "volunteers". In the case of driver training, a number of characteristics have been found to differentiate volunteers for driver training classes from non-volunteers; in some cases, these same characteristics are related to driving performance (1). For example, the New York Department of Motor Vehicles has established that whether a person takes a driver education class or not (in New York) is related to his scholastic standing and, furthermore, that scholastic standing is related to accident and violation records (3). It has also been suggested that because of socio-economic and exposure differences, individuals who attend schools which do not offer driver training may have poorer driver records than individuals who attend schools which do offer such a course. It has been shown, for example,



that drivers from lower socio-economic backgrounds are more frequently negligent drivers than those with higher socio-economic backgrounds (2).

To support the view that driver training is effective in reducing accident rates, it has often been pointed out that some insurance companies give rate reductions to teenagers who have taken a behind-the-wheel course. This does not necessarily provide evidence in support of the effectiveness of driver training. If teenagers that have completed a driver training course actually do have a superior driving record, it is possible that the difference is as much due to their personal characteristics as to the effectiveness of the course.

When the DMV driver questionnaire was designed, it was decided to include questions which would identify whether or not the subjects had taken driver education and training. It was hoped that the information gathered would aid attempts to evaluate behind-the-wheel training in general. Due to the previously mentioned selection factor (volunteer bias), it was realized at the outset that a completely definitive result could not be obtained.

In Table 8 and Charts III and IV, the driving records of the individuals who took and passed the driver training course (trained) are compared with those who attended a school which offered driver training but did not take the course and those individuals who did not attend a school which offered driver training. These last two groups will be referred to, collectively, as untrained drivers.<sup>(a)</sup> The difference with regard to violations is statistically significant in favor of the trained group.<sup>(b)</sup> This is consistent with findings from other studies, although the difference is not as marked as reported by some

---

(a) Data released by the California State Department of Education indicates that 63.5% of California high school students received driver training in the 1963-1964 school year. Our sample data therefore matches this figure almost exactly and provides rather convincing evidence for the validity and representativeness of the sample in this respect.

(b)  $F(\text{violations}) = 6.64$   $P < .01$

CHART III  
 AVERAGE (MEAN) NUMBER OF VIOLATIONS FOR TRAINED AND UNTRAINED DRIVERS BY SEX  
 (ONE YEAR RECORD)

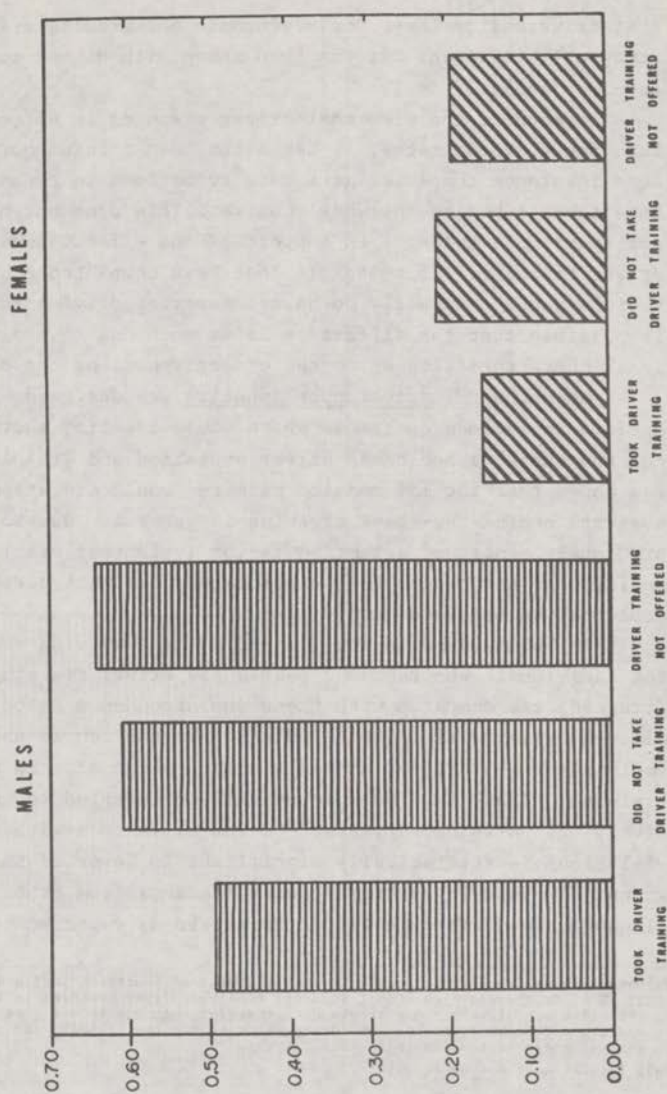
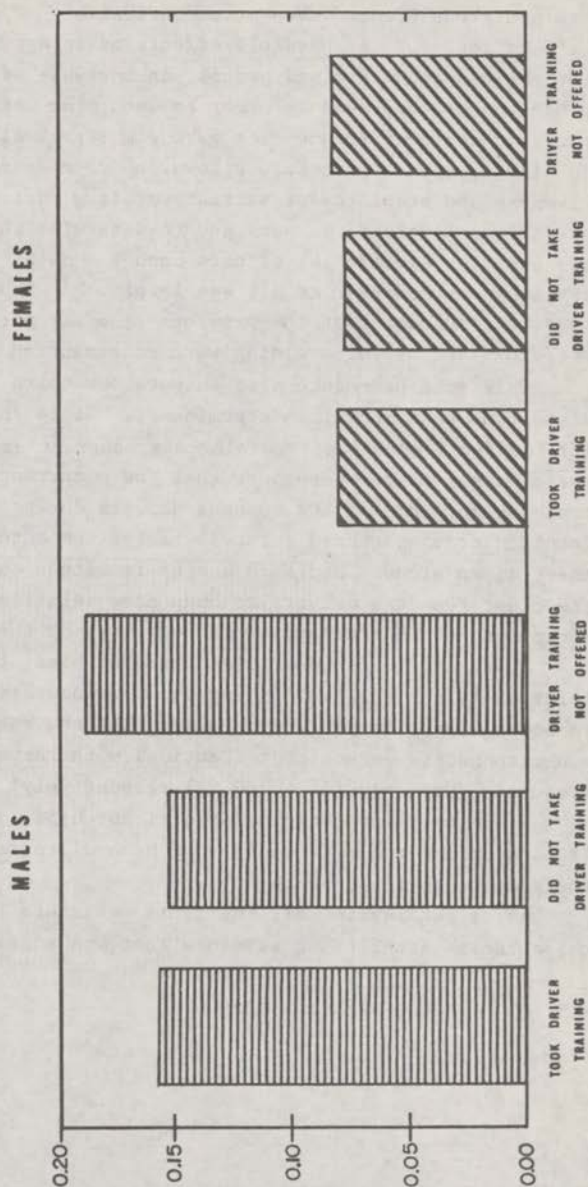




CHART IV

AVERAGE (MEAN) NUMBER OF ACCIDENTS FOR TRAINED AND UNTRAINED DRIVERS BY SEX  
(ONE YEAR RECORD)



trained group becomes even more conclusive.

To test for the possible effects of an age bias between the trained and untrained groups, an analysis of variance procedure was employed in order to determine whether the comparative accident frequencies were similar at all age levels. In effect, such a procedure allows one to measure the effectiveness and stability of a treatment (e.g. driver training) at various levels (e.g. age) and to determine what variables are exerting significant effects upon the data. The effect of training was constant at all age levels.<sup>(a)</sup> Thus, there is no reason to suspect that the previous findings with regard to accidents and driver training were contaminated by an age bias.

This same procedure also answers our third possibility of distortion -- temporal indeterminacy. Since the effectiveness (or ineffectiveness) of training was constant at all ages, there is no reason to suspect that the occurrence of driver training for some of the younger drivers during or after the recorded driving record interval biased the outcome against the trained group. Had such a bias resulted, one would expect the older teen-age drivers to have done relatively better than their younger counterparts, but such was not the case.

As to the fourth possible source of bias, the reader is referred to our earlier finding (p. 7) concerning the overall response bias. It will be recalled that the respondents and non-respondents were almost identical with respect to accident frequency (Mean = 0.126 and 0.131 respectively).

Since this indicated no significant bias to begin with, it is doubtful the data could have been distorted by limiting the samples to respondents.

After considering all the facts available from this study, the authors, can find no evidence that, on a statewide basis,

---

(a) F (age by training) = 0.857 P> .25



behind-the-wheel driver training is effective in reducing the frequency of accidents. (It was not possible, incidentally, to analyze any differences between ages or training groups as they may relate to accident severity.)

Due to the aforementioned exposure and violation bias which would tend to favor the trained group, the significance of the violation reduction becomes somewhat more uncertain. We, therefore, cannot determine from this study whether driver training, per se, results in a reduction in violation frequency.

The authors wish to emphasize that the present study has dealt with driver training as a whole, on a statewide basis. It is entirely within the realm of possibility that some effective programs do exist within the system, but are too insignificant in number to have appreciably affected the overall statewide accident average of the trained group.

Future research in this area should be oriented toward determining which (if any) of the present programs are effective. In any event, the research effort described herein should not be considered an end in itself, but rather a beginning to the scientific development and evaluation of driver training programs in this state.

CHART V  
RESULTS OF STATISTICAL TESTS BY SEX

Variables controlled	Accidents		Violations	
	Males	Females	Males	Females
Uncontrolled for mileage	Age not significant	Age not significant	Age significant (positive)	Age significant (positive)
Controlled for mileage variable (e.g. total miles in 1963)	Age significant (negative)	Age not significant	Age not significant	Age not significant
Controlled for all mileage variables with significant predictor variables listed.	Age significant (negative) Total hours per week (positive) Total miles in 1963 (positive)	Age not significant Total miles in 1963 (positive)	Age not significant Total miles in 1963 (positive) Total hours per week (positive) Total miles per week (positive)	Age not significant Total miles in 1963 (positive) Total miles per week (positive) Total hours per week approaches significance (positive)
Controlled for mileage and other factors related to age with significant predictor variables listed.	Age significant (negative) Total hours per week (positive) Total miles in 1963 (positive)	Age not significant Total miles in 1963 (positive) Months license in force (negative)	Age approaches significance (positive) Total hours per week (positive) Total miles in 1963 (positive) Total miles per week (positive) Parental regulation (positive) Total miles in life (positive)	Age not significant Total miles in 1963 (positive) Total miles per week (positive) Months license in force (positive) Total hours per week approaches significance (positive)

Note: A positive relationship indicates that as the variable increases in value the criterion variable (accidents or violations) increases. A negative relationship indicates that as the variable increases in value the criterion variable decreases in value.



## SUMMARY

1. In terms of driver record alone (uncontrolled for mile-age differences), statistical analysis of the data indicated. . .
  - a. accident frequency for both teen-age males and females to be unrelated to age
  - b. violation frequency for both males and females to increase as age increased.
2. In order to adequately control the effects of differences in exposure between age groups and to determine the relationship between relative risk and age, it was necessary to resort to a multiple regression analysis (See Chart V on opposite page). This analysis established: 1) exposure was a more important factor than age in determining accident and violation rates and 2) age was related only to male accident rates with older males having fewer accidents.
3. In order to determine the effects of inexperience, immaturity (as measured by age) and parental control on accident and violation records, it was again necessary to resort to a multiple regression analysis. Summarized below are the results of the regression analysis which included all variables.
  - a. For males, in addition to two exposure variables which were found to be positively related to accidents, age was found to be a predictor of accidents, with older males having fewer accidents. From this result, it was concluded that some intrinsic components of age (e.g. immaturity) were factors in the accident frequency of the younger male teen-aged driver.

Male violation frequencies were found to be related to three exposure variables, miles in life (experience) and parental regulations. More experienced drivers

and more regulated drivers had more violations. It was concluded that regulations came as a result of violations rather than the converse. Age (immaturity) approached significance, and the direction of the relationship was a positive or increasing one. Some possible explanations of these findings were offered in the text on page 15.

- b. For females one exposure variable and an experience variable (months license in force) were found to be significantly related to accidents, with more experienced drivers having fewer accidents. Three exposure variables and the experience variable (months license in force) were found to be significantly related to violations--the more experienced female drivers having more violations. Parental regulations and age (immaturity) made no contribution to accident or violation records for females.
4. In terms of absolute risk, the authors can find no evidence to support a raise in the minimum licensing age in California. In terms of relative risk, however, there is some evidence, for males, that younger drivers are more predisposed to accidents than drivers in their older teens. Any final decision concerning a raise in licensing age must be based upon the relative merits of these two methods of comparison.
5. The sample of teen-aged drivers was broken into three groups (did take, didn't take and couldn't take) on the basis of their answer to the questionnaire item regarding the completion of a behind-the-wheel driver training course. When the three groups were compared, the trained group had fewer violations, but no significant differences were found between the trained and untrained groups on accidents. Although it is entirely possible that some programs in certain individual school districts are effective, this finding raises serious questions about the general effectiveness of statewide driver training in reducing accidents.



## REFERENCES AND BIBLIOGRAPHY

1. Brazell, Robert, A Comparison of Various Behind-the-Wheel Training Methods, Lansing Michigan: The Traffic and Safety Division, Automobile Club of Michigan, 1962.
2. Coppin, R. S. and Samuels, I. (Department of Motor Vehicles, State of California), Control of the Negligent Operator, Part I, Sacramento, California: The Department, 1961.
3. Department of Motor Vehicles, State of New York, An Evaluation of the Driving Records of High School Driver Education Students in New York State, Albany, New York: The Department, 1964.
4. Heath, Earl, "Whats Wrong with Research in Traffic Accident Prevention?", Traffic Digest and Review, (June 1963), 11, pp. 4-64.
5. Lane-Reticker, Edward, (Institute of Government, State University of North Carolina), Driver Education in High Schools, Chapel Hill, North Carolina: The Institute, 1956.
6. Stewart, Robert, (Department of Public Instruction, State of Delaware), An Evaluation of the Driver Education Program in the State of Delaware in terms of the Performance Records of the Participants in this Program, Dover Delaware: The Department, 1954.

Table 1.-ACCIDENTS AND VIOLATIONS BY AGE AND RESPONSE CATEGORY

Age at beginning of driver record period	Violations						Accidents									
	Total sample		Respondents		Non- respondents		Non- recipients		Total sample		Respondents		Non- respondents		Non- recipients	
	Mean	Number	Mean	Number	Mean	Number	Mean	Number	Mean	Number	Mean	Number	Mean	Number	Mean	Number
All ages.....	0.422	10,250	0.386	6,664	0.517	2,955	0.366	631	0.125	10,250	0.126	6,664	0.131	2,955	0.090	631
16 years (0-2) months....	0.371	426	0.343	327	0.489	92	0.143	7	0.141	426	0.148	327	0.120	92	0.143	7
16 years (3-5) months....	0.374	633	0.281	467	0.479	142	0.250	24	0.136	633	0.133	467	0.134	142	0.208	24
16 years (6-8) months....	0.386	630	0.318	423	0.511	186	0.238	21	0.106	630	0.109	423	0.102	186	0.095	21
16 years (9-11) months....	0.382	663	0.304	451	0.560	184	0.464	28	0.136	663	0.135	451	0.152	184	0.036	28
17 years (0-2) months....	0.352	628	0.335	430	0.367	166	0.500	32	0.134	628	0.140	430	0.127	166	0.094	32
17 years (3-5) months....	0.392	719	0.373	466	0.437	213	0.375	40	0.125	719	0.120	466	0.146	213	0.075	40
17 years (6-8) months....	0.458	773	0.443	508	0.489	229	0.472	36	0.138	773	0.144	508	0.114	229	0.222	36
17 years (9-11) months....	0.463	790	0.406	498	0.590	239	0.434	53	0.149	790	0.131	498	0.197	239	0.113	53
18 years (0-2) months....	0.423	826	0.380	518	0.534	253	0.309	55	0.136	826	0.139	518	0.134	253	0.109	55
18 years (3-5) months....	0.526	823	0.442	525	0.720	243	0.473	55	0.115	823	0.112	525	0.132	243	0.073	55
18 years (6-8) months....	0.469	823	0.425	543	0.596	223	0.386	57	0.109	823	0.099	543	0.139	223	0.068	57
18 years (9-11) months...	0.427	827	0.439	503	0.420	237	0.358	67	0.116	827	0.113	503	0.125	237	0.104	67
19 years (0-2) months....	0.426	813	0.421	489	0.486	249	0.253	75	0.123	813	0.137	489	0.120	249	0.040	75
19 years (3-5) months....	0.435	876	0.417	516	0.498	279	0.333	81	0.099	876	0.114	516	0.090	279	0.037	81



Table 2.-ACCIDENTS AND VIOLATIONS BY AGE AND SEX

Age at the beginning of driver record period	Males			Females		
	Number	Accidents per person	Violations per person	Number	Accidents per person	Violations per person
All ages.....	3,878	0.162	0.541	2,786	0.075	0.169
16 years (0-2) months....	201	0.199	0.478	126	0.063	0.127
16 years (3-5) months....	291	0.165	0.375	176	0.080	0.125
16 years (6-8) months....	256	0.156	0.449	167	0.036	0.168
16 years (9-11) months....	282	0.174	0.401	169	0.071	0.142
17 years (0-2) months....	249	0.181	0.462	181	0.083	0.160
17 years (3-5) months....	276	0.159	0.533	190	0.063	0.142
17 years (6-8) months....	299	0.167	0.652	209	0.110	0.144
17 years (9-11) months....	282	0.163	0.560	216	0.088	0.204
18 years (0-2) months....	304	0.184	0.559	216	0.075	0.126
18 years (3-5) months....	293	0.147	0.587	232	0.069	0.259
18 years (6-8) months....	309	0.117	0.631	234	0.077	0.154
18 years (9-11) months....	284	0.148	0.620	219	0.068	0.205
19 years (0-2) months....	268	0.175	0.627	221	0.090	0.172
19 years (3-5) months....	284	0.151	0.595	232	0.069	0.198

Table 3.-MILES DRIVEN IN 1963 BY AGE AND ACCIDENT RATE  
(Based on 6,244 respondents)

Age at beginning of driver record period	Total sample			Males			Females		
	Average* miles driven	Miles per accident	Accidents per 100,000 miles	Average* miles driven	Miles per accident	Accidents per 100,000 miles	Average* miles driven	Miles per accident	Accidents per 100,000 miles
All ages.....	7,548	59,905	1.78	9,557	58,994	1.78	4,643	61,907	1.77
17 years (0-2) months....	4,668	31,541	3.46	5,685	28,568	3.74	2,916	46,286	2.52
16 years (3-5) months....	4,637	34,865	3.00	5,343	32,382	3.19	3,422	42,775	2.49
16 years (6-8) months....	5,571	51,110	2.07	7,165	45,929	2.27	2,989	83,028	1.32
16 years (9-11) months....	6,178	45,763	2.35	7,647	43,948	2.40	3,632	51,155	2.15
17 years (0-2) months....	6,629	47,350	2.25	8,345	46,105	2.26	4,114	49,566	2.24
17 years (3-5) months....	7,159	59,658	1.77	8,872	55,799	1.87	4,578	72,667	1.49
17 years (6-8) months....	7,156	49,694	2.10	9,568	57,293	1.79	3,506	31,873	3.40
17 years (9-11) months....	8,327	63,565	1.68	10,822	66,393	1.56	4,828	54,464	2.03
18 years (0-2) months....	8,150	58,705	1.79	10,322	56,098	1.86	5,034	66,720	1.60
18 years (3-5) months....	9,107	81,313	1.32	11,594	78,871	1.35	5,941	86,101	1.25
18 years (6-8) months....	9,027	91,182	1.17	11,498	98,274	1.05	5,597	72,688	1.50
18 years (9-11) months....	8,991	79,566	1.39	11,865	80,169	1.37	5,230	76,912	1.45
19 years (0-2) months....	8,910	65,036	1.63	11,870	67,829	1.55	5,213	57,922	1.87
19 years (3-5) months....	9,127	80,061	1.31	11,714	77,576	1.35	5,944	86,145	1.22

\*Arithmetic means



Table 5.-ACCIDENTS AND VIOLATIONS PER 100,000 MILES BY MILES DRIVEN IN 1963

Miles driven during 1963	Males		Females	
	Accidents per 100,000 miles	Violations per 100,000 miles	Accidents per 100,000 miles	Violations per 100,000 miles
Under 1,500.....	15.71	43.29	7.29	12.29
1,500-2,999.....	6.82	18.27	3.18	7.82
3,000-4,499.....	2.92	10.05	1.73	4.08
4,500-5,999.....	2.62	8.98	1.35	3.06
6,000-7,499.....	2.21	7.03	1.27	3.25
7,500-8,999.....	1.87	7.15	0.95	2.38
9,000-10,499...	1.60	5.77	1.13	2.93
10,500-11,999..	2.13	5.79	1.34	2.23
12,000-13,499..	1.74	4.91	1.17	2.82
13,500-14,999..	1.85	5.28	1.65	2.49
15,000-16,499..	1.11	3.75	1.12	2.25
16,500-17,999..	1.01	4.05	0.65	1.94
18,000-19,499..	1.12	3.43	1.34	3.12
19,500-20,999..	1.05	3.95	0.57	2.66
Over 20,999....	0.84	3.39	1.21	2.14

Table 8.-HIGH SCHOOL DRIVER TRAINING BY VIOLATIONS AND ACCIDENTS

Driver training status	Males			Females		
	Number	Average violations (mean)	Average accidents (mean)	Number	Average violations (mean)	Average accidents (mean)
Total.....	3,878	0.541	0.162	2,786	0.169	0.075
School offered driver training class.....	3,198	0.522	0.157	2,296	0.164	0.076
Did take and pass.....	2,514	0.498	0.158	1,795	0.154	0.076
Didn't take.....	684	0.611	0.154	501	0.202	0.074
School did not offer driver training class.	447	0.642	0.186	337	0.199	0.080
Status undetermined.....	233	0.601	0.185	153	0.183	0.059



Mr. FRIEDEL. You said it was a mistake in driver's education. What is a mistake in driver's education?

Mr. RUMSFIELD. Well, of course, we feel that the attitude building concept is a mistake, sir. Of course, many of us wonder whether driver education today is not actually a form of consumer education, simply educating customers to purchase vehicles without regard as to whether these customers are adequately educated to drive safely; it is more with regard to whether they are educated well enough to buy cars.

Mr. FRIEDEL. In other words, you feel that 6 hours behind the wheel is not sufficient?

Mr. RUMSFIELD. That is obvious, sir. I think most folks in this line do feel that way.

Mr. FRIEDEL. Where do you operate?

Mr. RUMSFIELD. I operate in Chicago, sir.

Mr. FRIEDEL. How long has your company been in business?

Mr. RUMSFIELD. About 12 or 13 years, sir.

Mr. FRIEDEL. Mr. Vinson, how about your company?

Mr. VINSON. Twenty years.

Mr. FRIEDEL. You have been in business 20 years?

Mr. VINSON. Yes, sir.

Mr. FRIEDEL. What do you think is the proper time for the behind-the-wheel education, the minimum requirements?

Mr. VINSON. A bare minimum of 10 to 12 hours.

Mr. RUMSFIELD. I think it should allow for individual differences. Our colleges and universities today speak to the students of education, and I am a former schoolteacher, that in all realms of education you allow for the individual differences between students. Some students can learn to drive in 8 to 10 hours behind the wheel, perhaps. Some need 15 or 20.

Very few can learn to drive safely in 6. Today we are hamstrung because we cannot allow for individual differences.

Mr. FRIEDEL. Does the automobile industry do anything to help in respect to driver education?

Mr. RUMSFIELD. They are instrumental in the safety foundations. They provide automobiles and assist behind the scenes. We are inclined to believe, however, that the efforts to date have been simply efforts to increase the vehicle sales.

I would like to point out a bulletin sent to the Ford dealers by the factory, a confidential bulletin, which points out that driver training produces customers, and this is why the dealers should become involved in this. It says here, "You have a big stake in high school driver training. It is a readymade means of continually expanding your market."

This produces the sales that the dealer wants.

This is rather a long document and repeated throughout it is the sense of my statement to you.

Mr. FRIEDEL. Could I have an extra copy?

Mr. RUMSFIELD. Yes, sir. Mr. Vinson can comment on this.

Mr. VINSON. I would like to quote a sentence from it. It says: "You have more than 11,000 schools and 15,000 teachers across the

United States who are, in a sense, working every day for the dealer who provides driver training cars."

Then another quote is, "In effect, the high school program works full time, not part time but full time, to expand your market by developing readymade buyers for our cars."

Then it goes further to say, "Knowing the high school instructor can be helpful. Get the students' names and use them as leads to sell the cars."

Mr. MACDONALD. Mr. Chairman, I think that should be accepted by unanimous consent, but I would also like to point out that the hour is getting late and one of the witnesses at least who is scheduled to appear here——

(The document referred to follows:)





## Business Briefs

CONFIDENTIAL

VOL. 27, AUGUST 25, 1959

PUBLISHED FOR FORD DEALERS BY FORD DIVISION  
OF FORD MOTOR COMPANY—DEARBORN, MICHIGAN  
COPYRIGHT © 1957, FORD MOTOR COMPANY, DEARBORN, MICHIGAN

### *you have a big stake in high school driver training*

*It's a ready made means of continually expanding your market*

Do you consider participation in the high school driver education loan-lease-sale program as primarily a community relations contribution?

Have you underestimated the financial burden to your business caused by poor drivers -- costs of extra police, hospitals, courts, etc?

Do you permit others to give the real support for more and better driver education in your community and state?

If so, you are overlooking the tremendous sales stake every dealer has in this extremely important and constructive program! More than 11,000 schools and 15,000 teachers across the United States are in a sense working every day for the dealers who provide driver training cars.

For a better perspective on the subject, let's go back 20 years and take a glance at what selling cars was like. Dealers then, and back in the 1920's, often made sales on the condition that the purchaser would be taught to drive by the dealer or his salesman -- an unwelcome, but necessary adjunct to moving a unit. It was a problem that dealers had to live with, and with characteristic energy and initiative they solved it.



JUST LIKE OPENING DAY  
AT THE WORLD SERIES

You might think these youths were waiting in line for World Series Tickets. Actually they were waiting for the opening registration for a 4 week summer driving training course at Detroit's Cody High School. The five above waited all night and several hundred more were in line by the time registration started.

Photo courtesy Detroit News

And without this having been done enthusiastically by both dealers and their salesmen the automobile market would certainly not have developed as rapidly as it did. For instance, to keep a salesman's time free for just selling, many dealers employed fulltime driving instructors. And in other instances top salesmen found it necessary to hire instructors to train the people they were selling. The important thing to keep in mind in all this is - it was done because it was necessary to do so to expand the market - and it paid off handsomely.

Basically the same situation exists today -- but to an unprecedented extent. More than 2 million young people are coming of driving age each year -- and by 1970 the number is expected to double. Most of these young people are possessed with a burning desire to drive an automobile. That desire is given added impetus just as soon as they acquire the "know-how" to properly handle a car. It is at this point that the average parent feels inclined to give approval to their youngster to drive the family car or to own one of his own.

Certainly, as a public-spirited citizen you want to make a contribution to improving the quality of driving on our streets and highways by participation in high school driver training. But in addition to this you have a tremendous personal stake in the millions of young people who each year become a part of the driving public. Teaching this vast new group of potential owners in Ford cars is in your best interests.



And then, contrast the present day programs of driver education, which are given by trained instructors in more than half the nation's high schools, with those in use formerly. Consider the reduced cost to you in time, trouble and expense compared to the old method.

In effect, the high school program works full time to expand your market by developing ready-made buyers for cars. By providing cars for schools you help develop more passenger car users, more potential prospects for your services -- greater profit possibilities.

So take a close look at what the present driver training program means to you, as a dealer. In addition to its civic-minded aspects it provides a means of continually expanding your market. We repeat, you help develop more passenger car users, more potential prospects for your services -- greater profit possibility.

In a word, you need the driver training program. And if yours is a booming economic area and you already have a program it probably could stand expansion. It is vital to your sales, good-will and profits that this constructive work is carried on. It's a sound investment - necessary to the success of your business now and in the future. Support this program with enthusiasm by making cars available on one of three basis -- loan, sale or leased -- to your local high schools.

You have a big stake in the driver training program of this country. It is something you cannot afford to ignore.



## *How the teen-age market affects you*

From 1957 to 1961 an estimated 11,500,000 young people will have taken to the highways.

The enormous increase in teen-age drivers will result in an estimated 4 million youths being licensed to drive in 1970. And by that year young people attaining driving age will reach a staggering total of 8 per minute, over 11,000 daily!

Purchasing power of teen-agers is just beginning to be felt as a tremendous economic force. The booklet "Teen-age Market" states that the purchasing power from allowances and earnings of this group will soar to \$14 billion annually by 1965.

Factor in spurring sales to teen-agers is the reduced insurance premiums covering bodily injury, collision, property damage now available in many states at from 10 to 15 percent reduction for youths who have completed full high school driver training courses.

Exerts great influence on family purchases at a time when father of the family is generally at or near his peak earning power. Children's wishes usually have a high priority.

According to a survey released a few months ago, 74 percent of drivers contacted stated they had pre-selected the car they were to buy before they ever entered a dealer's showroom. Driver training could have played a part in bringing these people to your door.

Young people are acutely brand conscious, not price conscious and like to "trade-up."

### *Department of interesting statistics on Driver Education*

Average Number of Cars Loaned each Year --

Chevrolet 5,000 ----- Ford 3,300

1,220,000 enrolled in high school classes in 1958 --

1/3 of eligible students had no training!

In 1958, 12,200 cars used in driver training.

In 1970, 35,000 will be required.

15 states now provide financial support for driver education --  
this helps strengthen the program.

The 1st car purchased is the most important,  
according to late Ford sales research studies.

## *seventh year in driver education Wayco dealer declares it pays off*

Jack Kultgen of Bird-Kultgen Motors in Waco, Texas is one of the most enthusiastic boosters of high school driver training. Mr. Kultgen has been a Ford dealer for 22 years and has participated in these driver education courses for six years by furnishing six cars for use of local high schools, during regular school terms.

During summer this year Mr. Kultgen had three cars in operation which were busily engaged in training 159 students who were taking vacation courses. "We expect to boost our participation in this program for the school term beginning 1959 by fifty percent," he states.

During a recent visit to Dearborn, Mr. Kultgen explained some of the phases of his dealership's participation in the programs in Waco schools:

- Cars used in the courses are very often sold at the end of the school term to teachers or employees of the school. The deals made work out very satisfactorily.
- Many families still have never owned a Ford car. To have children in such families driving them in high school training is an excellent advertisement for our product. It can be the means of switching competitive make owners to Ford.
- Driver training instructors familiarize students with features of the car. This results in a better understanding and appreciation of the unit.
- Kultgen personally talks to high school classes - without mentioning Ford. He impresses upon the students the need for them to become safe and courteous drivers. He particularly emphasizes the fact that having the ability to drive well is a necessary tool to making a livelihood in America today.
- And finally, in his own words, "This program has resulted in many, many sales."

### *3 routes you can go in driver training*

#### LOAN                      SALE                      LEASE

Rebates of \$125 are provided dealers for each safety-equipped car loaned to a high school for behind-the-wheel training classes. Loans provide dealer long term advantages compared to sale or lease in that the loan provides more assurance of consistently placing his cars. Sale and lease arrangements are handled between the dealer and the local school officials just like any other sale without Ford Motor Company entering into the deal.



*Things you can do  
to make driver training  
of more value to you*

- \* Knowing the instructor can be helpful -- he'll take better care of the car and perhaps help to sell it.
- \* Obtaining a list of the names of students graduating from each course during the year. See that your salesmen prospect this list of graduates. Also, add the parents to dealership's prospect file.
- \* It has been stated that "one of the dealer's most important functions is to create an appropriate dealership image or personality so that a maximum number of people will remember and be attracted to his dealership." One way to cash in on this desirable goal is to arrange a "field trip" through your facilities for driver training graduates, as part of a class exercise.
- \* Keeping training course cars in top operating condition will help build product preference and impress students with your dealership service.



## How Ford backs you up

### Many activities support driver education

The Traffic Safety and Highway Improvement Department, Ford Motor Company carries on an extensive program of activities directly concerned with promotion of high school driver education. Here are outstanding examples of Company participation.

● **DRIVER EDUCATION NEWS** -- a TIME-size, 8-page publication devoted to traffic safety education. The "News" is sent 3 times a year to a mailing list of nearly 40,000, including 27,000 high schools and thousands of other interested safety education organizations.

● **DRIVER EDUCATION FILMS** -- A series of 10 instructional films on driving are available for loan from three Ford Film Libraries around the Country (ask your District Sales Office for Film Catalog). A viewing audience of nearly 8 million saw this film series in 1958. Three new driver education films are now in production and will be available late in the year to replace 5 of the existing titles. These will have the National Commission on Safety Education approval as in previous series. A 4th new driver education film planned for release early in 1960 is tentatively titled "What Makes Your Car Run". Prints may be purchased either by schools or dealers for slightly over the laboratory cost of the print.

● **TEACHER AID KITS** -- A packet mailed free to driving teachers and other safety leaders containing booklets, charts and other background material on driver education.

● **DEFT DRIVING BOOKLET** -- One of the most popular driver training publications ever issued with nearly 3 million having been sent out. A limited number of free copies are still available -- write to Traffic Safety and Highway Improvement Department, Ford Motor Company, Dearborn, Michigan.

● **SPECIAL ACTIVITIES** -- Cover a variety of special programs aimed primarily at driver education teachers. Examples are: cooperation with the American Driver and Safety Education Association who were guests of Ford for one day during their 3rd Annual Conference; exhibits and speakers at state association meetings -- there are some 35 of these; special presentations for high school audiences are periodically arranged.

**SEEING HABITS FOR EXPERT DRIVING** -- This is a new driver education packet based on the "Smith System". It consists of a 58-frame, 35 mm, colored slide film, an instructor's guide and a 22 minute record keyed to the film. Packets are available at \$5.75 each, guides at \$1.10 each in normal quantities. This is the most modern and comprehensive teaching aid on good driver seeing habits available today. It would be a gift welcomed by your school.





Mr. FRIEDEL. I would like to say that I believe their statement is a very fine contribution.

Mr. RUMSFIELD. Thank you very much.

Mr. MACDONALD. I do have a question, Mr. Chairman.

Mr. FRIEDEL. Mr. Macdonald.

Mr. MACDONALD. On the Vehicle Equipment Safety Commission, which I had thought as sort of a vague commission, I would hope that we could listen to them as soon as we could, because I think their testimony would be very valuable to this committee.

I do want to thank Mr. Vinson and Mr. Rumsfield for their contribution.

Mr. VINSON. Thank you very much.

Mr. FRIEDEL. Mr. Louis P. Spitz, of the Vehicle Equipment Safety Commission.

**STATEMENT OF LOUIS P. SPITZ, CHAIRMAN, VEHICLE EQUIPMENT SAFETY COMMISSION; ACCOMPANIED BY BASIL R. CREIGHTON, EXECUTIVE DIRECTOR**

Mr. SPITZ. Mr. Chairman and members of the committee, my name is Louis P. Spitz, chairman of the Vehicle Equipment Safety Commission, with offices here in Washington, and also the director of the department of motor vehicles in my State of Nevada.

If I may, I don't come here today in opposition to the Transportation Act of 1966, nor the Traffic Safety Act of 1966. I think this is the greatest thing that has happened in Washington since the invention of the automobile. I am heartily in favor of it. I am here to put forth our statement in regard to the part that I feel the Vehicle Equipment Safety Commission can play in the overall picture of traffic safety.

Mr. Chairman, it is indeed a pleasure to be here today to discuss with your committee our views on H.R. 13228. This and related proposed legislation will have far-reaching effects on the entire framework of traffic safety and highway transportation as it exists today and, therefore, deserves broad deliberation and full presentation of all points of view.

In order to properly reference my remarks, I would like to begin by briefly reviewing the important and productive role of State officials through the years in promulgating vehicle equipment safety standards for the increased protection of the public. I feel that this is of particular importance because title I of this proposed legislation reaches so deeply into this area.

As has been demonstrated by the varied points of view on the subject presented before various congressional hearings in recent months, this is a broad and complex area and one that will demand a cooperative effort on many fronts to accomplish the greatest good for the public without unnecessary delay.

**ROLE OF STATE OFFICIALS**

The primary responsibility for the regulation of motor vehicles, including the promotion of highway safety, has rested with the States since the early days of the automobile. As a result, within each State

and within various associations of State officials, there has grown a body of specialists responsive to traffic safety needs and skilled in the techniques of regulatory and control measures.

One such group, the one most involved with matters of vehicle equipment regulation, has been the American Association of Motor Vehicle Administrators (AAMVA).

This national organization is composed of representatives from each of the States who are the governmental managers of the operational aspects of highway safety, including the licensing of drivers and vehicles, inspection of vehicle safety equipment, and enforcement of laws relating to both the vehicles and their drivers.

Their experience in the field of vehicle safety equipment dates back many years when elements of the organization first became concerned with the problems of headlighting and problems of regulating candlepower of headlamps.

Headlighting, I think, presents a fine example of the effectiveness of vehicle equipment regulation as developed by State officials and the continuing progress that has been made.

Headlamps of 30 or more years ago presented a number of problems to State officials—some gave too little light, some gave too much with resulting glare problems. We had two-beam headlamps, three-beam headlamps, and even one with six beams. Some of these systems produced more light on the right side of the vehicle, some had more on the left, some were equal, and some had beams that crossed.

Naturally this vast array of equipment presented serious problems for the motorist, both when driving on the highway and when in need of replacement parts.

Auto and lamp manufacturers were equally concerned with these problems and were working toward the development of a sealed unit that could become universal in its application.

In 1937, the Engineering Committee of AAMVA drew up an 11-point headlamp code, outlining its requirements, to serve as a minimum target for lamp and vehicle manufacturers.

This cooperative effort resulted in the development in 1939 of the now-familiar sealed-beam unit which provided a two-beam system, easily adjustable, containing filament, reflector, and lens in a single package, hermetically sealed against dirt and moisture and providing greatly improved light distribution.

Cooperation was continued and the postwar years brought an improved sealed-beam unit for both original equipment and replacement use in 1955, the dual headlighting system in 1956, and an improved 7-inch sealed-beam unit in 1959.

While in many cases, it was necessary in some States to amend the laws on vehicle lighting equipment to accommodate these advances, this was accomplished with all possible dispatch so that motorists could receive the benefits as soon as possible.

While I have used headlighting as an example, the activity of AAMVA extended into many other fields of vehicle equipment. To name just a few, included are operator vision and glazing, license plates, turn signals and direction indicators, noise and smoke, mufflers, brakes, bumper height, door securing devices, crash protection, speed control equipment, and horns.



The States have more than 1,100 laws, regulations, and approval procedures which currently apply to the safety equipment of motor vehicles. These do not cover State controls over items less closely related to safety, such as air conditioning, or to permissive types of equipment such as fog lamps or spot lamps.

#### AAMVA ENGINEERING AND INSPECTION COMMITTEE

The engineering and motor vehicle inspection committee of AAMVA played a key role in the development of procedures governing use of equipment on motor vehicles and it might be helpful to review the stated purposes of this committee.

#### ENGINEERING

1. To consider those factors of engineering related to motor vehicle equipment that are of importance in the administration of motor vehicle laws.
2. To evaluate the characteristics of safety equipment of motor vehicles, current research, and new development in the field of automotive engineering.
3. To recommend criteria and standards that will assure satisfactory levels of performance in motor vehicle safety equipment.

#### INSPECTION

1. To evaluate present administrative practices affecting official vehicle inspection programs.
2. To develop a program for the promotion of vehicle inspection in States not having such a program.
3. To develop, in cooperation with others, factual information for support of promotional programs.

Each year this committee travels to Detroit to confer with the auto industry's top engineers and review current work being carried out by the industry in numerous areas suggested by State officials. Last year, topics covered included such things as vehicle inspection techniques, GSA standards, crash injury problems and reports, industry quality control programs, and tire and brake developments.

Such activity, through the years, has been highly beneficial, as it has brought State officials, who are in the best position to interpret the needs and desires of the motoring public together with the scientific and engineering knowledge of the automobile industry.

However, I don't want to leave the impression that State officials working in this area of establishing vehicle equipment standards cooperate only with the auto industry. We have been in constant contact with such organizations as the American Standards Association, the Society of Automotive Engineers, and the Electrical Testing Laboratories.

We also have been in regular communication with such Federal agencies as the General Services Administration, Bureau of Standards, and others interested in standards.

The Interstate Commerce Commission and the Bureau of Public Roads, as members of the AAMVA, have taken an active part in the work of the engineering and vehicle inspection committee.

In this connection, it should be pointed out that the late Thomas H. McDonald, as Chief of the Bureau of Public Roads, expressed his belief that this interchange of ideas and information was indicative of a proper Federal-State relationship.

#### BEAMER RESOLUTION

Congress in the past has supported the view that State and local authorities have the responsibility for traffic safety. Perhaps the most striking recognition of this occurred with the approval in 1958 of Joint Resolution 221, or as it is popularly called the Beamer resolution, after a former member of this committee.

As you recall, this resolution gave the consent of Congress to the States to enter into agreements or compacts:

1. for cooperative effort and mutual assistance in the establishment and carrying out of traffic safety programs, including, but not limited to, the enactment of uniform traffic laws, driver education and training, coordination of traffic law enforcement, research into safe automobile and highway design, and research programs for the human factors affecting traffic safety, and
2. for the establishment of such agencies, joint or otherwise, as they deem desirable for the establishment and carrying out of such traffic safety programs.

The resolution, which received the unanimous endorsement of this committee, expressed the conviction that "cooperative effort and mutual assistance on the part of the State offers the greatest hope of satisfactorily dealing with this national problem."

In supporting the measure on the floor of the Senate, Senator Monroney stated:

I believe this measure, which may affect the safety of the American people, is one of the most important measures the Congress will pass this year.

The principle of interstate compacts for highway safety received strong support from President Eisenhower and President Kennedy, from State governments and from such important associations of State and local officials as the AAMVA, the International Association of Chiefs of Police, and the National Association of Attorneys General.

#### VEHICLE EQUIPMENT SAFETY COMMISSION

The development of a constitution for an interstate vehicle equipment safety compact was undertaken under the leadership of the Counsel of State Governments who retained two national authorities on interstate compacts, Mitchell Wendell and Frederick L. Zimmerman, as counsel for the project in 1960.

The American Association of State Highway Officials also took a close interest in developing a model vehicle equipment safety compact bill which was ready for submission to States in December 1961.

Since many legislatures meet biennially, the first full-scale opportunity for State legislatures to consider the compact came in 1963. In this same year, the Vehicle Equipment Safety Commission was created to administer the compact. The Commission has one representative from each signatory State, usually designated by law. In nearly every instance this representative is the State's motor vehicle administrator.



It is specifically set forth in the compact that each party State is obligated to consider any rule, regulation, or code produced by the Commission. Any decision in a State to depart from the exact language of a Commission-produced rule or regulation requires that State to hold a hearing and to take testimony regarding its decision to modify or reject the Commission's findings.

At the present time 44 States and the District of Columbia have joined the compact. This rapid adoption by so many States of a new compact gives strong indication of the interest of the States in pursuing the improvement of vehicle safety equipment with speed and determination.

As an example, the decision that the commission undertake the development of performance requirements for new tires for passenger cars and station wagons was reached in mid-October 1964. As a result of a study by a tire task force of the AAMVA, it was possible for the commission to produce a report on which a hearing could be held by November 4. A hearing on the report was held in New York City on January 8, 1965.

After allowing time for rebuttal testimony, the executive committee of the commission issued a regulation on tires on May 14. The annual meeting of the commission ratified the executive committee action after modifying the cut growth limitation and clarifying a provision with respect to identification.

The commission then formally issued regulation V-1, and it has been adopted in the States of Maryland, Florida, New Jersey, and Kansas. California and several other States have legislation that authorizes administrative adoption of this regulation.

In 1967, the legislatures in 47 States will hold sessions and by the terms of the compact they are obligated to consider the V-1 regulation if it has not been adopted through administrative procedure.

The commission is preparing to hold hearings in the very near future on proposed performance requirements for retread tires.

The commission has continued to work actively to develop standards in a number of other important areas of vehicle equipment such as brakes, safety glass, lighting, seat belts, crash helmets, and a variety of other components including aspects of the interior of the vehicle.

In discussing traffic safety at hearings of the Senate Subcommittee on Reorganization last year, Senator Fannin stated his concern at some proposals which would institute a hasty crash program, in effect ignoring the great potentiality of the compact and the great body of experienced judgment and knowledge at the State level. He stated:

\* \* \* State governments have demonstrated both their willingness and ability \* \* \* to mount a coordinated effective attack on highway accidents. Progress achieved in such a relatively short time indicates what can reasonably be expected in the future, given proper encouragement by the Federal government and all other agencies concerned with traffic safety.

Turning to the role of the Federal Government in this problem, Senator Fannin noted that—

one of the limitations of the Compact is the Commission's lack of funds sufficient to perform the type of independent equipment research that is necessary in order to develop acceptable and workable performance standards. With this in mind, it may well be that some Federal appropriation should be made available for vehicle safety equipment research if the Federal Government is to fulfill its share of the Federal-state responsibility.

## THE FEDERAL ROLE

We at the State level welcome greater Federal participation in the field of traffic safety but feel strongly that it should not supersede but complement present State activities which have now reached the point of rapidly increased effectiveness.

Other proposed legislation now before the Committee on Public Works promises Federal financial aid as an incentive to States to step up traffic safety activities on all fronts into well-organized, integrated programs.

Title II of H.R. 13228 also holds great promise for new safety knowledge, which could be of immense benefit to State officials, as the Federal Government develops new traffic safety research and testing facilities.

But, quite frankly, title I, as presently envisioned, disturbs us greatly as it divorces the States from any significant voice in the promulgation of vehicle equipment standards.

I think here I should sound a warning on what could well occur if Congress moves to eclipse the present role of the States in setting and enforcing vehicle equipment standards.

Let me cite one example. With the aid of the anticipated VESC regulation on retread tires, States will be positioned to adopt legislation to license and supervise the operations of the 16,000 retreaders who now are operating. Under the present arrangement, the States have some 40,000 experienced personnel, trained to administer and enforce these laws.

However, if a Federal standard were adopted, these State laws would be preempted. This would mean that there would be no enforcement at the State level and it would be necessary for the Federal Government to set up its own enforcement forces.

I should point out that this is only one area and it is not hard to visualize the need for expanding the number of Federal enforcement officers until it completely duplicates the 40,000 now operating at the State level.

The establishment of the vehicle equipment safety commission and its rapid endorsement by nearly all States constituted a recognition by the States that a high degree of cooperation was desirable and necessary if they were to discharge their vehicular safety responsibilities effectively. It was the view of the States, apparently supported by Congress when it enacted the Beamer resolution, that interstate cooperation could do the job.

It ill behooves Congress to present us, in effect, with a mandate to join together through interstate compacts to do a more effective job in traffic safety, and then revoke its mandate when the necessary legislative procedures have been accomplished and workable machinery established to rapidly accomplish an important part of this job.

We feel that, while the apparent intent of most traffic safety legislation now before Congress is to weld all aspects of Federal-State traffic safety activities into coordinated, effective programs, title I eradicates the State role in a major element—development of vehicle equipment standards.

As I have outlined previously, this has long been an important duty of State vehicle administrators who are now prepared, through the



vehicle equipment safety commission, to proceed rapidly in expanding the already vast body of State standards. It would be a serious mistake to enact any legislation which would rule out the long experience of this dedicated group by attempting to initiate new procedures which would only duplicate State efforts.

The vast body of vehicle equipment regulations now being enforced nationwide by the States in an effective and virtually uniform manner clearly indicates that the States can quite properly continue to administer such standards as they are developed.

State officials also are in the best position to police the continued adherence to such standards of vehicles as they are driven, traded, or resold. Vehicle equipment standards cannot be isolated from other elements of the traffic safety problems but through State programs should be designed to fit into comprehensive programs encompassing all elements.

We certainly do not question the desirability of the Federal Government actively participating in this or any other part of the traffic safety program. We feel that the vast resources of the Federal Government can aid greatly in speeding up the whole process of traffic safety improvement and ask only that States actively share in this program. We urge that title I of this bill be amended to give recognition to the important and necessary participation by the States in the establishment of vehicle equipment standards and their continued enforcement.

We also urge Congress to reaffirm its endorsement of interstate cooperation for highway safety by amending present legislation or introducing new legislation to provide Federal participation in and technical and financial support to the vehicle equipment safety commission.

The vehicle equipment safety commission was conceived as an instrument for interstate cooperation in the highway safety field. Its essential function is to provide a means for reviewing on an interstate basis the need for new or revised vehicle equipment safety standards and for developing and recommending to the member States for ratification such standards as are needed. The object is twofold, to help insure reasonable uniformity of State vehicle equipment regulation and to help speed the response to new safety needs and technological change.

This commission represents a made-to-order means of securing real Federal-State action. It already is a joint mechanism for 44 States and the District of Columbia and we fully suspect that it will soon be nationwide. The regulations which the commission promulgates can be developed from a wide variety of available standards, from technical societies, from public and private research and testing organizations, from the States themselves and from agencies of the Federal Government such as the General Services Administration.

Federal participation in and support of the vehicle equipment safety commission would not change or limit these sources, but would aid in providing a direct means of stimulating faster action along lines which are in the best national interest.

If the Federal Government were to join the compact, the vehicle equipment safety commission could develop vehicle equipment reg-

ulations which would have both Federal and State status and both interests would best be served.

Making the Federal Government eligible to join the interstate vehicle equipment safety compact would require an amendment to it which would be adopted by member States but this could be done with relative dispatch and would not hinder progress.

The present provisions of tile I envision at least a 2-year wait before the Secretary would move to set Federal standards. With 47 State legislatures scheduled to meet this year, it would not be remiss to assume, that having already declared their intent to cooperate fully by adopting the initial compact, States would move immediately to adopt the required amendment.

If the Federal Government chooses not to join the compact, there would remain the important alternative of VESC participation in any Federal safety performance standards-setting machinery. In such case, it is presumed the Secretary of Commerce would be empowered to set safety performance standards with the VESC—a significant element in the formation of such standards.

Pending the amendment of the compact to provide for Federal participation, the commission would welcome unofficial participation of Department of Commerce personnel that might be assigned to take part in Commission activities.

This would serve to give the Federal Government an immediate role in an effective standards-promulgating organization, give the commission and the States the benefit of Federal knowledge and research, and bring the greatest benefit to the public with the least possible delay.

I wish to thank this committee for the privilege of appearing before you today and for the opportunity to present these views on the need for Federal-State cooperation for greater highway safety.

Mr. FRIEDEL. Are the State officials who are listed active in this commission?

Mr. SPITZ. Extremely so, as John Jewell, commissioner of Maryland, pointed out. We have already come up with the performance standards for the automobile tire.

Mr. FRIEDEL. You also mentioned engineering inspection. You are in favor of the inspection?

Mr. SPITZ. Yes, we are. We have numerous other projects that we are working on at this particular time, Mr. Chairman. We have committees assigned to brakes, brake linings, brake system, glass, all glass covered by the ASA standards, and we are now also working on the retreaded tires and possible additions to V-1 to make these regulations even more stringent than they already are.

The performance standards, such as door latch systems, door hinge systems, hazard warning lights, windshield wiper-washer, seat belts, seat belt anchorages, and all lights and lamps covered currently by SAE and other standards.

We have a meeting coming up in Texas in July, at which time we will take a look at these studies.

Mr. FRIEDEL. Mr. Macdonald?

Mr. MACDONALD. Thank you, Mr. Chairman.

We have heard a good deal about your commission. I have some specific questions about it.



Mr. SPITZ. We are composed now of 44 States and the District of Columbia, so we have 45 members. Next year at this time we are confident that we will have the complete 50 States as members, including the District of Columbia.

Mr. MACDONALD. Do you have any staff from the Federal Government?

Mr. SPITZ. Yes.

Mr. Basil Creighton is our executive director, who went on the payroll in January of this year, and we have a secretary. This is the extent of our staff here in Washington at this time. If I may preface those remarks, Mr. Congressman, the fact is that all of the members of the commission, the 45 members, have staffs in their own States who assist in the investigation and in the study.

Mr. MACDONALD. That is not quite true, because my own State, and I don't mean to contradict you, but just for your information, my State of Massachusetts does not have anybody who works for your commission. I checked this out before I asked the questions. I did it for two reasons: First. I think they should have. We have a director of motor safety, whose name is Mr. McLaughlin, but he doesn't work with you people.

Mr. SPITZ. Ted Gunaris of your State is the chairman of the brake committee. That is, of the Vehicle Equipment Safety Commission.

Mr. MACDONALD. What is his connection with either the Federal Government, the State Government, or any city government?

Mr. SPITZ. What is our connection with it?

Mr. MACDONALD. What is his connection with the Commonwealth of Massachusetts?

Mr. SPITZ. He is the deputy registrar in the State of Massachusetts.

Mr. MACDONALD. What has he done?

Mr. SPITZ. He is in the motor vehicle department.

Mr. MACDONALD. I understand there is a gentleman called McLaughlin who is in charge of running the motor vehicles in the State of Massachusetts. I called him and he said he has no connection with your operation.

Mr. CREIGHTON. The Vehicle Equipment Safety Compact of Massachusetts (ch. 721, Laws, 1963) designates the registrar of motor vehicles as the commissioner for the Commonwealth on the vehicle equipment safety commission. Commissioner McLaughlin is the present registrar of motor vehicles of Massachusetts and, therefore, is also the VESC commissioner.

So far as Registrar McLaughlin is concerned, he is entitled to his opinion the same as any other member. He has not expressed an opinion directly to me, but whatever it is, I respect it. The commission operates under a democratic procedure that recognizes that there can be differences of opinion.

Mr. Theodore Gunaris, deputy registrar, Massachusetts, is chairman of the commission's committee on brakes.

Mr. MACDONALD. You talk about studying and to take a look at this plan, or the other.

Mr. CREIGHTON. At the present time we have come forward with Regulation V-1, which relates to new tires.

Mr. MACDONALD. That was a small regulation which dealt with one type of tire and it was adopted by one State.

Mr. CREIGHTON. No. I am sorry. I don't mean to correct you. The State of Maryland, the State of New Jersey, the State of Florida, and the State of Kansas have presently adopted that regulation.

Mr. MACDONALD. Let me ask you this question: If 4 out of the 40 States who participate in your compact accepted this do you think that the rate of accidents or fatalities has gone down in those States since you entered into this compact?

Mr. CREIGHTON. No; because these particular regulations don't begin to take effect until July 1 in the several States that I mentioned.

Mr. MACDONALD. Sir, I don't want to debate you on this point, but I am just saying that it seems to me, and you can correct me if I am wrong, that this is a problem, as Senator Ribicoff said this morning, that is not unique to any State, but it is a problem that transcends State lines because the automobiles cross State lines.

It seems to me that this commission that you say was set up—or maybe you didn't say it, but someone else did—is not the way to handle something that is going to control 50 States.

Are you in favor at this point, and I don't want to testify, but I am asking you a question, of having this so-called commission run what should be done in the 50 States?

Mr. CREIGHTON. This was the concept that came about as a result of the enactment of the Beamer resolution which came out of this committee.

Mr. MACDONALD. I know John Beamer very well. We are great friends. He served on this committee. He is a good man. I am sure what he had in mind was a good thing. But we are talking about the implementation of it. Nothing has happened, to my mind.

Mr. CREIGHTON. Sir, if you will let me explain—

Mr. MACDONALD. I will be happy to have you try to explain.

Mr. CREIGHTON. Thank you.

The commission did undertake and develop one regulation, V-1. It is now in the process of trying to do a number of things. It is quite true that they are at the present time in study committees. These study committees will report within the next 10 to 15 days. This will produce a report. This report will then be heard in Dallas, Tex., on July 18. Out of that we will develop standards in these areas that Commissioner Spitz just mentioned to you.

Mr. MACDONALD. Sir, you say 10 to 15 days—10 to 15 days from when?

Mr. CREIGHTON. From today.

Mr. MACDONALD. Why do you pick today?

Mr. CREIGHTON. I simply referenced it to this particular time. As a matter of fact, these particular subjects have been under study since earlier this year.

Mr. MACDONALD. This is my whole point. The point is, and I think it has been made by other witnesses, that these studies that have been going on for 8 years, for 10 years, depending on the degree of prejudice—there is no doubt that the study about the subject has been going on for quite a long time—now the industry says, "Well, we should let it all up to some commission that was established some years ago which has never done anything about this."

Do you think we, as Congressmen, should just abdicate our position to you and say, "All right, fine," even though you have not done your



job for 8, 9, 10, 6, 4, 5 years, but suddenly now you are going to do it? If you were sitting on this side of the witness table, what would you say?

Mr. SPITZ. Congressman, if I may put this in, here is a chronological record of the Beamer resolution, the vehicle equipment safety compact, and the vehicle equipment safety commission. We haven't really been in operation too long. We have just gotten the machinery together where we could begin to move and the chronological record will show that we have moved rapidly to perform our appointed task.

(The document referred to follows:)

CHRONOLOGICAL HISTORY OF THE BEAMER RESOLUTION, VEHICLE EQUIPMENT SAFETY COMPACT, AND THE VEHICLE EQUIPMENT SAFETY COMMISSION

Feb. 5, 1957: Congressman Beamer introduced H.J. Res. 221.  
 Aug. 20, 1958: Both Branches of Congress approved and President signed. (Public Law 85-684, 1958.)  
 1961-62: Compact drafted under aegis of Western Governors' Conference and Council of State Governments. AAMVA endorses IACP endorses.  
 1962: (1) Legislature in New York enacts compact.  
 1963: (26) Legislatures enact compact in California, Colorado, Delaware, District of Columbia, Florida, Idaho, Illinois, Kansas, Maine, Massachusetts, Michigan, Nebraska, Nevada, New Hampshire, New Mexico, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, Texas, Utah, Vermont, Washington, Wyoming.  
 1964: (6) Arizona, Georgia, Kentucky, Louisiana, New Jersey, Virginia.  
 1965: (12) Arkansas, Connecticut, Indiana, Iowa, Maryland, Minnesota, Missouri, Montana, Oklahoma, South Dakota, Tennessee, Wisconsin.  
 Sept. 23, 1963: Commission held Organization meeting. Constitution of by-laws, Code of Ethics drafted.  
 Sept. 21, 1964: First Annual Meeting of Commission.  
 Nov. 4, 1964: Announces public hearing on tires.  
 Jan. 8, 1965: Public hearing on tires held in New York City.  
 Mar. 9-11, 1965: Rebuttal to testimony received.  
 April 27, 1965: Executive Committee approves tire regulation as drafted.  
 May 14, 1965: Regulation V-1 released for publication. Maryland, Florida, New Jersey adopt Regulation V-1.  
 Oct. 10, 1965: Annual meeting of VESC ratifies V-1 Regulation. Kansas adopts Regulatory V-1.  
 Jan. 19, 1966: Executive Director hired.  
 Feb. 1, 1966: Offices opened at 1026 17th St., N.W.  
 May 18, 1966: Announcement of public hearings on tire retreads, brake linings, glazing materials, lights, doorlatches, hinges, hazard warning lights.

Mr. MACDONALD. To keep the record straight, you were put into operation in 1958; is that right?

Mr. SPITZ. Not the Vehicle Equipment Safety Commission; no, sir.

Mr. MACDONALD. I thought Congressman Beamer was defeated for election—

Mr. SPITZ. The Beamer resolution was passed in 1958 and signed then by the President and it gave us the machinery to set up the Commission, and the Commission then went to New York in 1963. It had its first organizational meeting. We actually became a workable Commission in 1964.

Mr. MACDONALD. This is not in criticism of you, but actually you haven't really done anything as far as safety on the highway is concerned; have you?

Mr. SPITZ. We haven't. We grabbed the bear by the tail when we took on new, original tires. We could have gone to windshield wipers,

Mr. Congressman, or something less important, but we felt tires were of a priority. We took this on and we now have it in operation.

Here is a copy of the V-1 rules and regulations. This we personally feel is a pretty big project as far as we are concerned. We are now moving into other areas, as I pointed out.

Mr. MACDONALD. Where are your headquarters?

Mr. SPITZ. We are headquartered here in Washington, sir.

Mr. MACDONALD. Senator Ribicoff said he wrote a letter and it came back from Dearborn, Mich., or Detroit, the headquarters being the automobile industry headquarters. You say that you have a freely functioning headquarters aside from the automobile industry headquarters?

Mr. SPITZ. Yes, we have a freely functioning headquarters. I do not know anything about Senator Ribicoff's letter or when it was mailed. During the formative period of the organization, correspondence could have been misdirected because its functions were being carried on by a secretariat provided by the American Association of Motor Vehicle Administrators. No other organization or individual has ever had any authority to answer correspondence directed to the Vehicle Equipment Safety Commission.

Mr. MACDONALD. In what way can you show this to be true?

Mr. SPITZ. To show that we have an office aside from industry? Is that what you are getting at, Mr. Macdonald?

Mr. MACDONALD. What I am saying is that if you are an independent organization which you claim to be, and you keep saying that you are, I am saying to you, if you are an independent organization, give me a headquarters, give me a president, give me people who support it, give me the facts of what supports your organization.

Mr. SPITZ. That I will do, Mr. Congressman.

Mr. MACDONALD. I wish you would. It hasn't happened yet.

Mr. SPITZ. I am the chairman of the commission, elected at the annual meeting.

Mr. MACDONALD. Elected by whom?

Mr. SPITZ. By the commissioners of the 44 member States and the District of Columbia that comprise the commission. Then we hired an executive director in January and set up an office here in Washington.

The appended list is a roster of the current membership of the commissioners who are responsible officials in their respective jurisdictions. (The document referred to follows:)

#### VEHICLE EQUIPMENT SAFETY COMMISSION (BY JURISDICTION)

##### *Arizona*

David H. Campbell, Superintendent, Motor Vehicle Division, 1739 West Jackson Street, Phoenix, Arizona, 85007, Tel: AC 602 No. 261-7427.

Alternate: George Lippert, Administrative Assistant, Motor Vehicle Division, 1739 West Jackson Street, Phoenix, Arizona, 85007, Tel: AC 602 No. 261-7413.

##### *Arkansas*

W. H. L. Woodyard, Director, Motor Vehicle Division, State Capitol, Little Rock, Arkansas, 72207, Tel: AC 501 No. FR 5-9911.

Alternate: C. Don Hayes, Chief, Equipment Division, State Highway Department, P.O. Box 67, Jacksonville, Arkansas, Tel: AC 501 No. FR 4-1937.

##### *California*

Robert B. Bradford, Administrator, Highway Transportation Agency, 1120 N Street, Sacramento, California.



Alternate: Bradford M. Crittenden, Commissioner, Dept. of California Highway Patrol, P.O. Box 898, Sacramento, California, 95804, Tel: AC 916 No. 445-7473.

#### *Colorado*

A. Woody Hewett, State Senator, 2530 Iris Street, Boulder, Colorado, Tel: AC 303 No. HI 2-2758.

#### *Connecticut*

John J. Tynan, Commissioner, Department of Motor Vehicles, 60 State Street, Wethersfield, Connecticut, 06109, Tel: AC 203 No. 249-7331.

#### *Delaware*

Russell W. Whitby, Commissioner, Motor Vehicle Department, P.O. Box 698, Dover, Delaware, 19901, Tel: AC 302 No. 734-5711.

#### *District of Columbia*

George A. England, Director, Department of Motor Vehicles, 301 C Street, N.W., Washington, D.C., 20001, Tel: AC 202 No. 629-3751.

Alternate: Herman S. Cole, Deputy Director, Department of Motor Vehicles, 301 C Street, N.W., Washington, D.C., 20001, Tel: AC 202 No. 629-3751.

#### *Florida*

Col. H. N. Kirkman, Director, Department of Public Safety, Neil Kirkman Building, Tallahassee, Florida, 32304, Tel: AC 305 No. 877-4151.

Alternate: Lee Foster, Attorney, Department of Public Safety, Tallahassee, Florida.

#### *Georgia*

Col. H. Lowell Conner, Director, Department of Public Safety, P. O. Box 1456, Atlanta, Georgia, 30301, Tel: AC 404 No. 627-3531.

Alternate: Captain G. H. Webb, Training Officer, Public Safety-Training Division, P. O. Box 1456, Atlanta, Georgia, 30301, Tel: AC 404 No. 627-3531.

#### *Idaho*

E. R. Hopper, Commissioner, Department of Law Enforcement, 3211 State Street, P. O. Box No. 34, Boise, Idaho, 83701, Tel: AC 208 No. 344-7471.

#### *Illinois*

Walter R. Berry, Engineer of Traffic, Division of Highways, Dept. of Public Works and Buildings, 801 State Office Building, Springfield, Illinois, 62706, Tel: AC 217 No. 525-2500.

#### *Indiana*

Floyd A. Kline, Sr., Director, Office of Traffic Safety, 511 State Office Building, 100 North Senate Avenue, Indianapolis, Indiana, 46204, Tel: AC 317 No. 633-5753.

#### *Iowa*

Gene L. Needles, Commissioner, Department of Public Safety, State Office Building, Des Moines, Iowa, 50319, Tel: AC 515 No. 281-5261.

#### *Kansas*

Claud R. McCamment, Safety Director, Traffic and Safety Department, State Highway Commission, State Office Building, Topeka, Kansas, 66612, Tel: AC 913 No. CEntal 5-0011 (Ext. 431).

#### *Kentucky*

Glenn Lovern, Commissioner, Department of Public Safety, State Office Building, Frankfort, Kentucky, 40601, Tel: AC 502 No. 223-8221 (Ext. 721).

Alternate: Lt. Judson E. Edwards, Department of Public Safety, New State Office Building, Frankfort, Kentucky, Tel: AC 502 No. 564-4686.

#### *Louisiana*

Col. Thomas D. Burbank, Director-Superintendent, Division of State Police, Department of Public Safety, P.O. Box 1791, Baton Rouge, Louisiana, 70821, Tel: AC 504 No. 924-7211.

#### *Maine*

Kenneth M. Curtis, Secretary of State, State House, Augusta, Maine, 04330, Tel: AC 207 No. 623-4511 (Ext. 721).

*Maryland*

John R. Jewell, Commissioner, Department of Motor Vehicles, 6601 Ritchie Highway, N.E., Glen Burnie, Maryland, 21061, Tel: AC 301 No. 761-4500.  
Alternate: Ejner J. Johnson, Executive Assistant to Commissioner, Department of Motor Vehicles, 6601 Ritchie Highway, N.E., Glen Burnie, Maryland, 21061, Tel: AC 301 No. 761-4500.

*Massachusetts*

General Richard E. McLaughlin, Registrar of Motor Vehicles, Registry of Motor Vehicles, 100 Nashua Street, Boston, Massachusetts, 02114, Tel: AC 617 No. 227-7800.  
Alternate: E. Theodore Gunaris, Deputy Registrar, Registry of Motor Vehicles, 100 Nashua Street, Boston, Massachusetts, 02114, Tel: AC 617 No. 727-3800.

*Michigan*

James M. Hare, Secretary of State, State Capitol, Lansing, Michigan, 48918, Tel: AC 517 No. 373-2510.  
Alternate: Richard M. Cook, Assistant Secretary of State, Room 112—Capitol Building, Lansing, Michigan, 48918, Tel: AC 517 No. 373-2513.

*Minnesota*

John R. Jamieson, Commissioner, Department of Highways, State Highway Building, St. Paul, Minnesota, 55101, Tel: AC 612 No. 221-3003.  
Alternate: Paul R. Staffeld, Deputy Commissioner, Safety Division, Department of Highways, State Highway Building, St. Paul, Minnesota, 55101, Tel: AC 612 No. 221-3003.

*Missouri*

Thomas David, Director, Department of Revenue, Jefferson Building, Jefferson City, Missouri, 65102, Tel: AC 314 No. 635-6831.  
Alternate: Thomas E. Whitecotton, Assistant Supervisor, Motor Vehicle Registration, Jefferson Building, Jefferson City, Missouri, 65102, Tel: AC 314 No. 635-6831.

*Montana*

Alex B. Stephenson, Supervisor, Montana Highway Patrol, 435 North Last Chance Gulch, Helena, Montana, 59601, Tel: AC 406 No. 442-3260 (Ext. 265).

*Nebraska*

James Dunlevey, Director, Department of Motor Vehicles, Box 4789, State Capitol, Lincoln, Nebraska, 68509, Tel: AC 402 No. 477-5211 (Ext. 227).  
Alternate: Edwin Grubbs, Assistant Chief Examiner, Department of Motor Vehicles, P.O. Box 4789, State Capitol Building, Lincoln, Nebraska, 68509, Tel: AC 402 No. 477-5211.

*Nevada*

Louis P. Spitz, Director, Department of Motor Vehicles, State Office Building, Carson City, Nevada, 89701, Tel: AC 702 No. 882-7308.  
Alternate: A. D. McCuiston, Deputy Director, Department of Motor Vehicles, Blaisdell Building, Carson City, Nevada, Tel: AC 702 No. 882-7307.

*New Hampshire*

Robert W. Rhodes, Commissioner, Department of Safety, New State Office Building, 85 Loudon Road, Concord, New Hampshire, 03301, Tel: AC 603 No. 225-6611 (Ext. 777).  
Alternate: Frederick N. Clarke, Jr., Supervisor of Traffic Safety, Division of Safety Services, State Office Building, Concord, New Hampshire, 03301, Tel: AC 603 No. 225-6611 (Ext. 745).

*New Jersey*

Miss June Strelecki, Director, Division of Motor Vehicles, 25 So. Montgomery Street, Trenton, New Jersey, 08625, Tel: AC 609 No. 292-4570.  
Alternate: A. James Sherwood, Assistant Director, Division of Motor Vehicles, 25 So. Montgomery Street, Trenton, New Jersey, 08625, Tel: AC 609 No. 292-4799.

*New Mexico*

Benny E. Sanchez, Commissioner, Department of Motor Vehicles, State Capitol Building, Santa Fe, New Mexico, 87051, Tel: AC 505 No. 827-2262.



*New York*

William S. Hults, Commissioner, Department of Motor Vehicles, 504 Central Avenue, Albany, New York, 12206, Tel: AC 518 No. 438-4521.

Alternate: Arnold W. Wise, Counsel to the Commissioner, Department of Motor Vehicles, 504 Central Avenue, Albany, New York, 12206, Tel: AC 518 No. 438-4521.

*North Carolina*

A. Pilston Godwin, Jr., Commissioner, Department of Motor Vehicles, 1100 New Bern Avenue, Raleigh, North Carolina, 27602, Tel: AC 919 No. 829-7267.

Alternate: Joe W. Garrett, Deputy Commissioner, Department of Motor Vehicles, 1100 New Bern Avenue, Raleigh, North Carolina, 27602, Tel: AC 919 No. 829-7268.

*North Dakota*

Weldon L. Haugen, Registrar, Motor Vehicle Department, 720-26th Street, Bismarck, North Dakota, 58501, Tel: AC 701 No. 255-1496.

Alternate: Mrs. Georgia H. Gutensohn, Safety Committee Representative, Motor Vehicle Department, State Capitol, Bismarck, North Dakota, 58501, Tel: AC 701 No. 223-8000 (Ext. 422).

*Ohio*

Warren C. Nelson, Director, Department of Highway Safety, 240 Parsons Avenue, Columbus, Ohio, 43205, Tel: AC 614 No. 469-3383.

*Oklahoma*

Robert R. Lester, Commissioner, Department of Public Safety, 410 North Walnut, P.O. Box 1826, Oklahoma City, Oklahoma, 73101, Tel: AC 405 No. Central 2-1261.

Alternate: Earl Janssen, Director, Accident Records Division, Department of Public Safety, P.O. Box 1826, Oklahoma City, Oklahoma, 73101, Tel: AC 405 No. Central 2-1261.

*Oregon*

Vern L. Hill, Director, Department of Motor Vehicles, 1905 Lana Avenue, N.E., Salem, Oregon, 97310, Tel: AC 503 No. 364-2171 (Ext. 225).

Alternate: Donald G. Neave, Assistant Reciprocity Officer, Department of Motor Vehicles, 1905 Lana Avenue, N.E., Salem, Oregon, 97310, Tel: AC 503 No. 364-2171 (Ext. 1103).

*Pennsylvania*

Theodore B. Smith, Jr., Secretary of Revenue, Department of Revenue, Room 207, Finance Building, Harrisburg, Pennsylvania, 17123, Tel: AC 717 No. 787-3910.

Alternate: Harry H. Brainerd, Commissioner, Bureau of Traffic Safety, Finance Building, Harrisburg, Pennsylvania, 17123, Tel: AC 717 No. 787-2977.

*Rhode Island*

James F. Williamson, Registrar of Motor Vehicles, Registry of Motor Vehicles, State Office Building, Providence, Rhode Island, 02903, Tel: AC 401 No. Jackson 1-7100 (Ext. 222).

*South Dakota*

Albert M. Parker, Commissioner, Department of Motor Vehicles, State Capitol, Pierre, South Dakota, 57501, Tel: AC 605 No. 224-5911.

Alternate: Don A. Sheppard, Deputy Commissioner, Department of Motor Vehicles, State Capitol, Pierre, South Dakota, 57501, Tel: AC 605 No. 224-5911 (Ext. 233).

*Tennessee*

Lawrence Sperry, Counsel, Department of Safety, Cordell Hull Building, Nashville, Tennessee, 37219, Tel: AC 615 No. 741-2856.

Alternate: Captain C. B. Fowlkes, Tennessee Highway Patrol, Department of Safety, Cordell Hull Building, Nashville, Tennessee, 37219, Tel: AC 615 No. 741-2881.

*Texas*

George W. Busby, Chief, Inspection & Planning Division, Department of Public Safety, 5805 North Lamar Boulevard, Box 4087, North Austin Station, Austin, Texas, 78751, Tel: AC 512 No. Homestead 5-5471 (Ext. 224).

*Utah*

Raymond A. Jackson, Commissioner, Department of Public Safety, 317 State Office Building, Salt Lake City, Utah, 84114, Tel: AC 801 No. 328-5621.

*Vermont*

James E. Malloy, Commissioner, Department of Motor Vehicles, State Office Building, Montpelier, Vermont, 05602, Tel: AC 802 No. 223-2311.

Alternate: Raymond E. Grout, Deputy Commissioner, Department of Motor Vehicles, State Office Building, Montpelier, Vermont, 05602, Tel: AC 802 No. 223-2311.

*Virginia*

Col. C. W. Woodson, Jr., Superintendent, Department of State Police, Box 1299, Richmond, Virginia, 23210, Tel: AC 703 No. Bridge 2-1431.

Alternate: Capt. R. M. Terry, Safety Officer, Department of State Police, Box 1299, Richmond, Virginia, 23210, Tel: AC 703 No. Bridge 2-1431.

*Washington*

Capt. DeWitt Whitman, Special Services Division, Washington State Patrol, General Administration Building, Olympia, Washington, 98502, Tel: AC 206 No. 753-6558.

*Wisconsin*

James L. Karns, Commissioner, Motor Vehicle Department, 4802 Sheboygan Avenue, Madison, Wisconsin, 53702, Tel: AC 608 No. 266-2233.

Alternate: Dan Schutz, Director, Safety Division, Motor Vehicle Department, Hills Farms State Office Building, Madison, Wisconsin, 53702, Tel: AC 608 No. 266-2233.

*Wyoming*

Lt. N. C. Boyd, Safety Director, Wyoming Highway Patrol, Highway Building, Cheyenne, Wyoming, 82001, Tel: AC 307 No. 634-1341 (Ext. 321).

Mr. MACDONALD. January of what year?

Mr. SPITZ. January of 1966.

Mr. MACDONALD. Do you mean this is the first time that safety became a factor to your organization?

Mr. SPITZ. No, sir. Up to that time, due to finances, we were unable to set up a separate office.

Mr. MACDONALD. Why?

Mr. SPITZ. Finances, because the States that had accepted this—

Mr. MACDONALD. How come you didn't have any finances and then you got finances?

Mr. SPITZ. Because some of the States that were willing to join the Commission, Mr. Congressman, had to go to their legislatures and receive the appropriation, or dues, call it what you will, so that we would have a fund to operate on. This took time, inasmuch as some legislatures don't meet but every 2 years. Now we finally have the money. We have finally set up a staff. We are centered here in Washington, D.C. The machinery is in operation and we are on our way.

Mr. MACKAY. Will the gentleman yield?

Mr. MACDONALD. I will yield in a moment.

I would just like to say that all the problems that you are talking about were problems long before we had this hearing. I am sure you agree to that.

Mr. SPITZ. Yes.

Mr. MACDONALD. So if the people who are interested in safety that you say you represent were interested then, how suddenly did they get financed if they weren't financed before?



Mr. SPITZ. Well, the background of that, sir, is that the compact that authorized the establishment of the Vehicle Equipment Safety Commission specifically prevents the Commission from pledging the credit of a party State. The specific language taken from article VI-(c) reads:

The Commission shall not pledge the credit of any party State. The Commission may meet any of its obligations in whole or in part with funds available to it under article III (h) of this compact, (that is, from funds provided by the Federal Government or party States) provided that the Commission takes specific action setting aside such funds prior to incurring any obligation to be met in whole or in part in such manner. Except where the Commission makes use of funds available to it under article III (h) hereof, the Commission shall not incur any obligation prior to the allotment of funds by the party States adequate to meet the same.

If the Commission was to obtain operating funds directly it had to get them from the party States or the Federal Government. Because of these limitations, as well as the urgency of the situation, the Commission accepted the secretariat services volunteered by the American Association of Motor Vehicle Administrators. It should also be noted that the Commission reserved to itself the authority of the executive director. All services performed in its behalf were simply secretarial in nature.

Mr. MACDONALD. That is sort of a peculiar jump. I will yield to Mr. Mackay.

Mr. MACKAY. Thank you, Mr. Macdonald.

Mr. Chairman, Mr. Farnsley and I would be willing to yield.

Since Col. John Paul Stapp, one of our national heroes and the best informed man I have talked to in the 5 months I have been interested in traffic safety, is here, and I would hate to lose the opportunity to hear from Colonel Stapp. If Mr. Spitz would wait, would you mind yielding?

Mr. MACDONALD. I will not yield about this, Mr. Chairman.

Mr. MACKAY. I would like to examine him further, myself.

Mr. FARNSELY. Mr. Chairman, what part of the cycle are we in? Is this man testifying or is my colleague in his 5-minute period?

Mr. FRIEDEL. We will keep order and keep questioning within the 5-minute rule.

Mr. MACDONALD. Sir, the reason I ask you these questions—and it is not about you personally, or not to interest my colleagues in the South about this—is that my interest goes to the Vehicle Safety Equipment Commission which apparently you represent.

Mr. SPITZ. Yes, sir.

Mr. MACDONALD. When was the Commission established?

Mr. SPITZ. The original meeting was in 1963.

Mr. MACDONALD. What has happened since that was established in 1963?

Mr. SPITZ. The V-1 standard for the original tires.

Mr. MACDONALD. In other words, in 3 years you have come out with one regulation? If I am misstating the fact—

Mr. SPITZ. Mr. Congressman, might I back up a moment? The original meeting to set up the machinery was established in 1963. The project of new tires was taken on in 1964 and completed 1 year ago. Four States have now accepted it.

Mr. MACDONALD. What else has the so-called Vehicle Equipment Safety Commission done since that time?

Mr. FRIEDEL. He said there were other committees appointed and they are bringing forth reports.

Mr. MACDONALD. I would like an answer from the witness, Mr. Chairman.

Mr. SPITZ. Would you repeat that, please?

Mr. MACDONALD. I say what else has the Vehicle Equipment Safety Commission done since that time?

Mr. SPITZ. Nothing, Mr. Congressman. This is the month of May. Come July we will have a study on retread, recaps, braking systems, et cetera.

Mr. MACDONALD. In other words, you are more interested in tires than you are in safety?

Mr. CREIGHTON. Not at all, Congressman.

Mr. SPITZ. The Commission felt that tires carried the priority, and from tires we will move into the braking system and the safety glass system.

Mr. MACDONALD. But it is 3 years now, sir.

Mr. SPITZ. Actually 2, Mr. Congressman.

Mr. MACDONALD. 1963-66 makes 3 years to me. Maybe you have a different system.

Mr. SPITZ. Only 2, Mr. Congressman, that we have been working on the subject. The 3 years that you are going back is the 1 year that we took for organization to get these member States.

Mr. FRIEDEL. The Chairman will have to invoke the 5-minute rule. Mr. Mackay.

Mr. MACKAY. Mr. Chairman, if Mr. Spitz would be kind enough to wait a few minutes—could you do that?

Mr. SPITZ. I would be most happy to.

Mr. MACKAY. Is Colonel Stapp next?

Mr. FRIEDEL. Yes.

Mr. MACDONALD. Mr. Chairman.

Mr. MACKAY. He will not leave the room.

Mr. SPITZ. I will remain.

Mr. MACDONALD. Mr. Chairman, I would like it to be stated on the record that not all the question that come to mind from members of the committee have been asked of the present witness. If there is another witness present to be heard following this witness, I would like this witness to remain.

Mr. FRIEDEL. If you will excuse me, I think he stated that the Commission was formed in 1964 or 1963, and they waited for funds. You know how the legislatures work. They don't always approve funds in the first session they are requested.

Now they have the funds and they started operating beginning the first of this year. Last year they brought in one regulation and they have other studies being made. They expect them to be reported back in July. How far they are going, I do not know, but they are moving now. It is an operation.

Mr. MACKAY. Mr. Chairman, could I make a comment about Colonel Stapp?

Mr. FRIEDEL. Yes.



Mr. SPITZ. I will remain. It will be my pleasure, Mr. Chairman to remain.

Mr. MACKAY. Mr. Chairman, the Good Book says greater love hath no man than that he lay down his life for his fellow man.

In my opinion Colonel Stapp is a national hero. He has been willing to risk his life for us. He is a very modest man and would never tell us this himself. But his experiments on the durability of the human body really have led us into outer space. I have talked with him in my office, at my request, and he is a deeply committed man. He is in the military uniform. We asked for permission for him to testify here today. He is the man that furnished me the figure that 42 percent of the fatalities last year occurred under survivable conditions.

That means the the gravity forces were not great enough of themselves to cause death. We can do certain things he believes, to save 20,000 lives a year. I just want to pay my respects to him. There is a lot of drama in war, but the men that do this research in peace make it possible for our Nation to remain victorious.

I just don't think this Nation has ever said thank you enough to Col. John Paul Stapp, who is here from the Air Force. I am very glad that I could be here and say this and have the colonel hear me.

Mr. FRIEDEL. It is my pleasure to invite you to come to the witness table.

**STATEMENT OF COL. JOHN P. STAPP, CHIEF, IMPACT ENTRY BRANCH, ARMED FORCES INSTITUTE OF PATHOLOGY, WASHINGTON, D.C.**

Colonel STAPP. Mr. Chairman, Congressman Mackay invited me to speak and he carries on in the great and enlightened tradition of his predecessor, Congressman Roberts, before whom I testified on previous occasions.

I am Col. John P. Stapp, presently assigned as Chief, Impact Entry Branch, Armed Forces Institute of Pathology. The Armed Forces Institute of Pathology is a U.S. Federal institution that serves as the international conscience of the medical profession.

It is the court of last resort on diagnosis, and has in its files over 700,000 autopsies which represent the medical profession's joint effort to police its diagnosis and treatment in retrospect.

It has saved many a leg from being amputated for a wart that could be mistaken for a tumor, to be specific.

We welcomed this morning Capt. Stefan E. Epstein to the Armed Forces Institute of Pathology and he lost no time in telling me a very interesting story.

On the 16th of April, about 10:30 o'clock, on a Saturday, he and Captain Mastranglio were driving from Gunther Air Force Base to Keesler, Miss. About 60 miles north of Mobile, Ala., Epstein was driving this 1966 Plymouth station wagon belonging to the other man. It has about 12,000 miles on it. As he was turning off of Highway 95 near its completed end the car pulled to the left.

He was moving at 20 to 30 miles an hour. He heard loud thumping sounds. The ride became bumpy. They checked the tires and found the left front going flat.

In order not to block traffic they pulled across the street into the service station. At the service station, the left front tire was almost completely flat and very much hotter than the other tires, all of which were felt for comparison.

Removing the tire revealed that the inner shoulder on the wheel had partially sheared and allowed air to escape from the tire. He visited three different Plymouth dealers to get the wheel replaced and two of them had a total of five similarly defective wheels.

One dealer in Montgomery, Ala., told Dr. Mastranglio that the defective wheels were from a defective lot supplied by one of three subcontractors and offered to inspect the remaining wheels.

Captain Epstein suggested that he have all the wheels replaced. He gave me a diagram of how the wheel inside rim had a metal fatigue failure which suddenly enlarged because the middle of the crack was rusted and the outer edges of it were not rusted and the wheel almost came apart while they were driving. He said he trembled at the thought of what would have happened if the wheel had failed to that extent while they were driving 60 miles an hour before they reached this part of the road.

I also wish to submit on behalf of Dr. Donald M. Glover, member of the American Medical Association Committee on Trauma, a letter for the record from which I quote:

The facts are these: I had parked my car at University Hospitals while I made about a 30 minute visit in the Hospital. When I came out I found the car filled with smoke and upon investigation with my pocket flash I found it was coming from a pin-hole where apparently a cigarette hot ash had melted through the seat cover and underneath the seat padding was burning and emitting a very nauseating smoke which I recognized as nitric peroxide, the stuff that caused the Cleveland Clinic Disaster when the Old X-ray films caught fire (and John Philips and the others that died were killed by the fumes—not the fire). I decided quickly that the parking lot of the Hospital which was very close to the building with a lot of other cars around was no place to fight such a fire. So I put a heavy leather brief case over the hole and sat on it, opened the windows and barreled for home in rush hour traffic. By the time I arrived there (about 8 minutes), my tail was plenty hot and I was terribly nauseated by the fumes. Then I cut the seat cover open with a knife and with gloves on began pulling the orange hot padding out of the seat and with a fire extinguisher, a bottle of carbon tetrachloride and a couple of pails of water I put it out, but the padding I had pulled out on the wet ground continued to burn for a couple of hours.

My car is a Buick Special 1965 model. It so happened that on that day I had received a very elaborate booklet from the President of General Motors extolling the virtues of the *safety features* that were built into all their cars. It seems the dealers and even the G.M. people in Detroit *thought* they were putting foam rubber in their seats, but instead what they have is a combination of a plastic sponge and a mechanics waste-like material, both of which are flammable and when burning produce a lethal gas. I understand all the G.M. cars have this and also those made this year.

One might speculate about what might have happened if I had left the car for several hours. It seems likely the entire inside of the car would have been gutted and the gas tank finally exploded and the other cars near by ignited. The sponge material ignites readily either in presence or absence of oxygen. I have a good supply of it if you wish any for study. The use of these materials probably saves a few cents on each car.

Another disturbing incident occurred the same week: a neighbor died in a fire in the middle of the night that seemed to have centered about the living room couch and she obviously died from fumes not fire. So I asked my wife (also an M.D.), "What do you suppose is in that beautiful new couch you purchased recently?" She opened up a part of the upholstery and it is the same material that is in the automobile seat, burns the same way and give off the NO<sub>2</sub> fumes.



So that's a fine kettle of fish.

Anything you can do to "smoke out" this situation will certainly be in the public interest.

This is by way of commenting on self-regulation by the industry. It has been said in yesterday's Washington Post by an industry representative making a speech that he took somewhat of a dim view of the effectiveness of Federal regulation or Federal supervision of safety in the automotive industry on the basis of the record of the regulation of air traffic and air safety by FAA and CAB.

The record as reported by Flight Safety Foundation briefly is this: This is for jets, a new type of aircraft in 1959. There was one fatal accident for each 85,000 hours flown at that time, whereas in 1964 there was one fatal accident for each 700,000 hours flown. Accident investigations, under Federal regulation, have accomplished relentless pursuit of all mistakes and corrections where they are due.

The most completely regulated form of transportation by Federal Government is space flight. The international record in space flight today is 17 flights, 733 orbits, 1,163 hours, 38 minutes, 28 seconds of space flight, 19,033,250 miles covered without a single injury or fatality. There are 26 regulating stations around the earth that tell the U.S. astronauts what to do at all times. They have been able to cope with all emergencies.

It would seem that self-regulation of safety by industry becomes like self-surgery. No matter how well meant, both the objectivity and the sponge count can become difficult.

Mr. MACDONALD. Mr. Chairman.

Sir, this is not the position that the industry took before the House committee here. I quite agree with you that it is the position that was taken by the industry before the Senate, but they have changed their position, roughly about 180°.

Therefore, while we are very interested in hearing about it, it is talking about something that hasn't anything to do with reality. The industry, itself, and its safety committee, headed up by Mr. Bugas, has said that they have changed their opinion about this.

Therefore, everything you say is probably very true but it doesn't really have anything to do with the bill that we will hopefully put out of this committee. I don't quite understand why your testimony would go to this.

Mr. FRIEDEL. Let him go ahead and we will see where it ends up.

Colonel STAPP. I will now address myself to the problem we have in the Armed Forces, a problem that we are limited in what we are able to do about insofar as research is concerned on off-base automotive accidents. These slides will show figures I have gotten from Army, Navy, and Air Force accident statistics.

Mr. MACDONALD. Mr. Chairman, can I ask a question at this point?

Mr. FRIEDEL. Yes.

Mr. MACDONALD. How many minutes will this go on?

Colonel STAPP. Very briefly.

Mr. FRIEDEL. He has permission. I want to see them.

Colonel STAPP. Let us just go through the slides, if it is permissible.

Mr. FRIEDEL. The objection is overruled. We will have the slides shown.

Mr. MACDONALD. You?

Mr. FRIEDEL. I think it would be useful to see them.

Mr. MACKAY. Mr. Chairman, I would like to plead with my colleague from Massachusetts to let us see these figures because they illustrate the fact that the civilian off-base environment is more dangerous than war. We are trying to generate some public opinion here to do something about this. I would hope that my colleague would yield on this.

Mr. MACDONALD. Mr. Mackay, if it takes a unanimous consent opinion, which I am sure it does under the rules of this committee, I will object.

Mr. FRIEDEL. That is part of his testimony. It doesn't take unanimous consent to show some slides.

Mr. MACKAY. It supports what I understand your position to be, Mr. Macdonald. You are a stout advocate of this legislation. We could lose this battle. I think Colonel Stapp has some data here that will bring this matter to the attention of the American people in a way that it is not yet before them.

Mr. MACDONALD. There are many people here, Mr. Mackay, that would support your point of view, and I am for your point of view. I just think having slides not OK'd by the committee is just not proper procedure.

Mr. MACKAY. Mr. Chairman, let me make this point: I am so totally convinced that Colonel Stapp probably has the most important evidence yet to be brought before this committee. I would certainly agree with Mr. Macdonald that there is some absenteeism here at this hour. If it is humanly possible for this to be presented at the beginning in the morning, I would hope that the entire committee could see it, because I think it is that important.

I don't know whether Colonel Stapp could come back tomorrow or whether you would have authority to schedule him.

Mr. FRIEDEL. I would not have authority to schedule him for the first thing tomorrow morning because I don't know what the schedule is for tomorrow.

Mr. MACKAY. I feel strongly that it ought to go into the record. All of us have the privilege of leaving if we have another engagement. I have one, but I think this is more important than any other engagement. I think it is more illuminating to hear the witness and see the slides than to read the printed record.

That is why I am pleading with my colleague to yield and let us hear from Colonel Stapp.

Will you yield?

Mr. MACDONALD. It is not a question of yielding. It is a question of procedure. I am sure, Mr. Mackay, you understand that.

Mr. MACKAY. I am not familiar with that rule.

Mr. FRIEDEL. I am not familiar with that rule, either. We don't need unanimous consent to show slides which are evidence and informative to the committee. If they were taking pictures in here, yes, they would require unanimous consent. But this is just showing slides and information that is very informative for the committee.

Mr. MACDONALD. Mr. Chairman, if you want to do it, there is nobody who can overrule the chairman.

Mr. FRIEDEL. I think I am correct and I so rule.



You may proceed, Colonel. How long do you think the slides will take?

Colonel STAPP. Not very long. We don't have too many. We will not show all of them.

(Slide) If you look at the totals on this slide multiplied by thousands, this represents the cost in dollars per a 5-year period beginning in 1945 through 1964. Actually, it is a 20-year period. It runs into the billions for accidental costs of hospitalization and the actual cost to the Armed Forces for the death from accidents of its personnel. Each death is \$40,000, each man day is \$42, which is the cost of hospitalization.

(Slide) This is by years, which is perhaps a little easier to see. There are the totals in the order of \$308 to \$352 million in 1960, 1961, and 1962 for hospitalization and deaths in accidents.

Mr. MACDONALD. Colonel, could I ask you a question at that point?

Colonel STAPP. Yes.

Mr. MACDONALD. What does this have to do with death on the American highway? We have people in Okinawa, we have people in Japan, I suppose, we have military people all over the world. These figures don't really mean anything unless you identify them.

Colonel STAPP. They were consolidated from Army, Navy, and Air Force accidents by the year and for the 20-year period in a survey to get at the size of the accident problem.

Mr. MACDONALD. Is this about Okinawa?

Colonel STAPP. It is all over the world, all of the armed services.

Mr. MACDONALD. What does this have to do with the bill we are talking about?

Mr. MACKAY. Will the gentleman yield?

Mr. MACDONALD. I will yield after I have an answer. I will be happy to yield, but I would like to have an answer first.

Colonel STAPP. That with adequate research on the best documented population in the world, the Armed Forces—

Mr. MACDONALD. I can't hear you, sir. It is probably your machine.

Colonel STAPP. With adequate research on the best documented population in the world, the Armed Forces, where we can get the most accurate figures, we can arrive at ways of reducing accident rates.

Mr. MACDONALD. Would you repeat that?

Colonel STAPP. We can arrive at ways of reducing death and injury from accidents.

Mr. MACDONALD. But you say, and I didn't follow the figures because they are so broad, that a number of people in the Armed Forces are killed, but you don't say where. In Turkey? In France? In South Vietnam? In North Dakota or in Georgia, where tempers flare high, I am told? You just give out with a figure about the armed services but you don't say where they are or what it is all about.

Mr. FRIEDEL. He said all over the world.

Colonel STAPP. All over the world; yes, sir. These are consolidated figures for the entire world.

Mr. MACDONALD. Are Georgia and Alabama in the world? Sometimes I doubt it, but I guess they are.

Mr. MACKAY. Would the gentleman yield?

Mr. MACDONALD. I would be happy to yield.

Colonel STAPP. All over the world for the Armed Forces. That is our beat.

Mr. MACDONALD. In Iran, in Egypt, in South Vietnam?

Colonel STAPP. All right, you bring up South Vietnam.

Mr. MACDONALD. Do you mean to say that vehicles have blown up in various places in the world, and that happens here in the United States?

Colonel STAPP. Most assuredly.

Mr. MACDONALD. But I would like to have a breakdown on what happens here in the United States.

Mr. FRIEDEL. He said these were figures from all over the world.

Mr. MACDONALD. Mr. Chairman, if you would, let me finish.

I would like for you to break them down, not just the things on the slides that you have the sergeant running for you, to break it down into where. Certainly there are accidents in Egypt, or in Iran. You know, camel drivers come into the accident rate.

I will yield.

Mr. MACKAY. Mr. Macdonald—

Mr. MACDONALD. Mr. Mackay is a great friend of yours and he makes good sense.

Mr. MACKAY. We have a friendly witness. I want to point that out. We have a man who is an authority on durability of the human body, which has to do with vehicles. Senator Speno said in his very able testimony the other day that the traffic accidents is a world phenomenon. I have a 17-year-old boy who I expect to go into the Armed Forces and serve anywhere in the world. Therefore, this man has the professional competence to assess the motor vehicle. So whether the boy gets in an accident in Edinboro, Lisbon, wherever it happens, it seems to me is secondary to the fact that we are producing the vehicles in this country, and this is what he can speak to.

I would be glad, since I have asked the colonel to come over for us, if he could come back tomorrow afternoon at 4 o'clock in the afternoon when the climate might be better for this colloquy.

Mr. MACDONALD. Mr. Mackay, the climate for your witnesses is always good.

Mr. FRIEDEL. I think that is a very good suggestion.

Mr. MACKAY. Colonel, can you be here at 4 tomorrow afternoon?

Colonel STAPP. Thank you very much.

Mr. MACDONALD. I just want to put on the record, colonel, that I am not in any way saying that your testimony is not correct. I just say we ought to pinpoint it down a little bit.

Colonel STAPP. Let me sum up in one sentence. What I was trying to aim at is this: Our losses in the Armed Forces in deaths from accidents run 3 to 6 times as many as all of our combat losses, and it is an important problem in the Armed Forces and needs priority attack if we are to carry out the mission of the Medical Corps to conserve the fighting strength.

Mr. MACDONALD. Thank you, sir.

Mr. MACKAY. Mr. Chairman, I just want to ask Mr. Spitz a couple of questions.

My questions are really not argumentative.

I probably voted as a member of the Georgia Legislature for the compact under which you are operating, and I am glad that this evidence of concern about traffic safety was made. But it seems to me



we have to distinguish motor vehicle safety performance standards and the other criteria we use for the traffic safety programs.

I think I understood what Mr. Macdonald was saying. I feel very strongly personally that the compact approach to motor vehicle safety performance standards is very much like the Articles of Confederation, which proved to be inadequate in that the machinery for arriving at the standards is entirely too cumbersome and too slow with the accelerating death rate we have in this country.

There is no dispute in the world that the automobile is the most conspicuous article in interstate commerce. There is no dispute in the world that to get 50 State legislatures to agree on anything is almost impossible, as witness the fact that you have 6 States that have not come into the V.E.S.C. I think there may be a very useful function for your organization, but I question whether it is in the agency for fixing these safety performance standards.

I can only speak out of my Georgia experience, but there is no one in the government of the State of Georgia who is professionally trained and assigned any responsibility for competence in this area. I wanted to ask you if you made any study of the laws which assign to any individual responsibility for determining safety performance standards in vehicles? I am not talking about the motor vehicle administrator or the State patrol. I am talking about an engineer charged with the definition of safety performance standards.

Do you know or can you answer that?

Mr. SPITZ. Mr. Mackay, in the act that was passed in your State as in other States, it specifically points out in there that we are to go to private and public agencies for this information and bring it back into the Commission, study it and then make your rules and regulations.

This is the method by which we do it. There is nothing in the act that points out that Mr. Mackay is a tire expert from Georgia and he is the man to be contacted.

Mr. MACKAY. But the other day the automobile industry was, it seemed to me, trying to say that we ought to go back to the States because they know more about safety performance standards than anybody else. What I am saying is that there is nobody in the State of Georgia that is assigned any legal responsibility to know anything about this subject.

Mr. SPITZ. I must agree with you on that, Mr. Mackay, for the simple reason that the paper that I am submitting here today to the chairman is asking that we and the Federal Government join hands and become a partnership, and that the GSA and the Bureau of Standards, et cetera, within the Federal Government work very closely with the Commission from the States.

This is some 50-odd minds. We can get together and come up with some guidelines for the Congress to put into legislative bills.

Mr. MACKAY. Let's get into the time element. The charge has been made against the automobile industry, and Mr. Bugas denied this, by the way, that this is a stalling operation into the indefinite future. As a practical matter, how long do you think it would take your organization to arrive at minimum safety performance standards, even if you did nothing more than just review the existing 14 GSA standards? Are we talking about 6 months or 6 years?

Mr. CREIGHTON. We are talking about 6 months, less than 6 months, as a matter of fact.

Mr. MACKAY. I favor consulting with your organization, and I just wanted you to answer about the time element.

Mr. CREIGHTON. As a matter of fact, on the 15th day of May our studies will be completed. We have to put them into report form. When they are put into report form, then we have to give notice. There is 60 days in which notice must be given.

On the 18th of July, or the 19th and 20th of July, and we can issue standards immediately thereafter, our processing time isn't any longer than GSA's and we have no intention to delay.

Mr. MACKAY. The other question is this: Under your compact are you limited to motor vehicle equipment or are you assigned a legal duty to get into matters like the adequacy of lighting on expressways?

Mr. CREIGHTON. No.

Mr. SPITZ. No, we are limited to the motor vehicle equipment, as the name of the Commission points out.

Mr. MACKAY. As you know, our whole thrust is to try to get an agency that will look at the total traffic accident phenomenon, not overlooking anything. You would agree that you are limited by law just to equipment on the vehicle?

Mr. SPITZ. That is right, Mr. Congressman.

Mr. MACDONALD. Mr. Mackay?

Mr. FRIEDEL. He yields.

Mr. MACDONALD. I would like to ask this question because I was not here for the entire testimony that was given this morning. I think the total number of vehicles should be considered.

How many vehicles do you have that would really affect the flow of the main stream of the things coming off the assembly line from Detroit, Dearborn or wherever it is in Michigan? You order how many vehicles? 16,000, 14,000?

Mr. SPITZ. Within our State?

Mr. MACDONALD. Yes.

Mr. SPITZ. Coming from a small State, Mr. Macdonald, as Nevada—

Mr. MACDONALD. I am talking about GSA.

Mr. FRIEDEL. He is not with them.

Mr. SPITZ. I have no connection there. I think there was 60,000, the last figure I saw, Mr. Macdonald.

Mr. MACDONALD. Isn't that a very small drop in the flow, on the stream of vehicles that come out?

Mr. SPITZ. You are absolutely right. It is a small drop. But if we can get together with the Federal Government on these vehicle equipment safety specifications, then when industry puts out their new cars every year out of Detroit there will be up in the millions.

Mr. MACDONALD. As a last question, I have, by indirection if not by direction, thought that your commission is sort of a phony thing which has its orders from Detroit, it gets its technological information from there.

Mr. SPITZ. We work with the General Services Administration, we work with the Bureau of Standards.

Mr. MACDONALD. That is not true, sir.



Mr. SPITZ. We have records, Mr. Macdonald, and we have information, documented information, showing, and proving that we have worked with these people very, very closely. They sit in on all of our meetings.

Mr. MACDONALD. By working with them, you mean you have put in your recommendations to them. But what are the 44 States who have joined this compact which our Congress has agreed that you can do, that you can join under the compact passed by the Congress—you can join—and what has come out of that? As I understand it, one very weak tire recommendation. What else have you done?

Mr. SPITZ. Mr. Macdonald, if I may, it is one very strong tire regulation that we feel came out.

Mr. MACDONALD. Well, maybe it is strong, maybe it is weak. What else?

Mr. FRIEDEL. I am going to adjourn the meeting. Please answer the question.

Mr. MACDONALD. Name me one other thing.

Mr. FRIEDEL. He said just the one thing.

Mr. SPITZ. Just the one, thus far. But I have pointed out already the number of other areas we are working in, such as brakes, et cetera. We will be on that this summer.

Mr. FRIEDEL. Thank you very much.

The committee is recessed until 10 o'clock tomorrow morning.

(Whereupon, at 7:05 p.m. the committee recessed, to reconvene at 10 a.m., Wednesday, May 4, 1966.)



THE UNIVERSITY OF CHICAGO  
CHICAGO, ILLINOIS

TO THE HONORABLE SENATE OF THE UNIVERSITY OF CHICAGO  
I have the honor to acknowledge the receipt of your letter of the 10th inst. in relation to the proposed amendment to the constitution of the University of Chicago, and to inform you that the same has been referred to the Committee on the subject, and that they are now considering the same.

I am, Sir, very respectfully,  
Your obedient servant,  
JOHN D. JACKSON, Secretary.



